WATER SUPPLY OUTLOOK FOR OREGON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE

and

OREGON STATE UNIVERSITY

and

STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above in cooperation with other Federal, State and private organizations.

AS OF
JAN. 1, 1969

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80521
Idaho	P. O. Box 38, Boise, Idaho 83707
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388 , Sacramento , California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

WATER SUPPLY OUTLOOK FOR OREGON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

JANUARY 8, 1969

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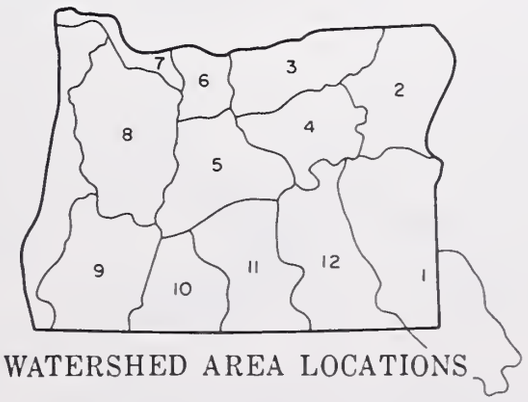
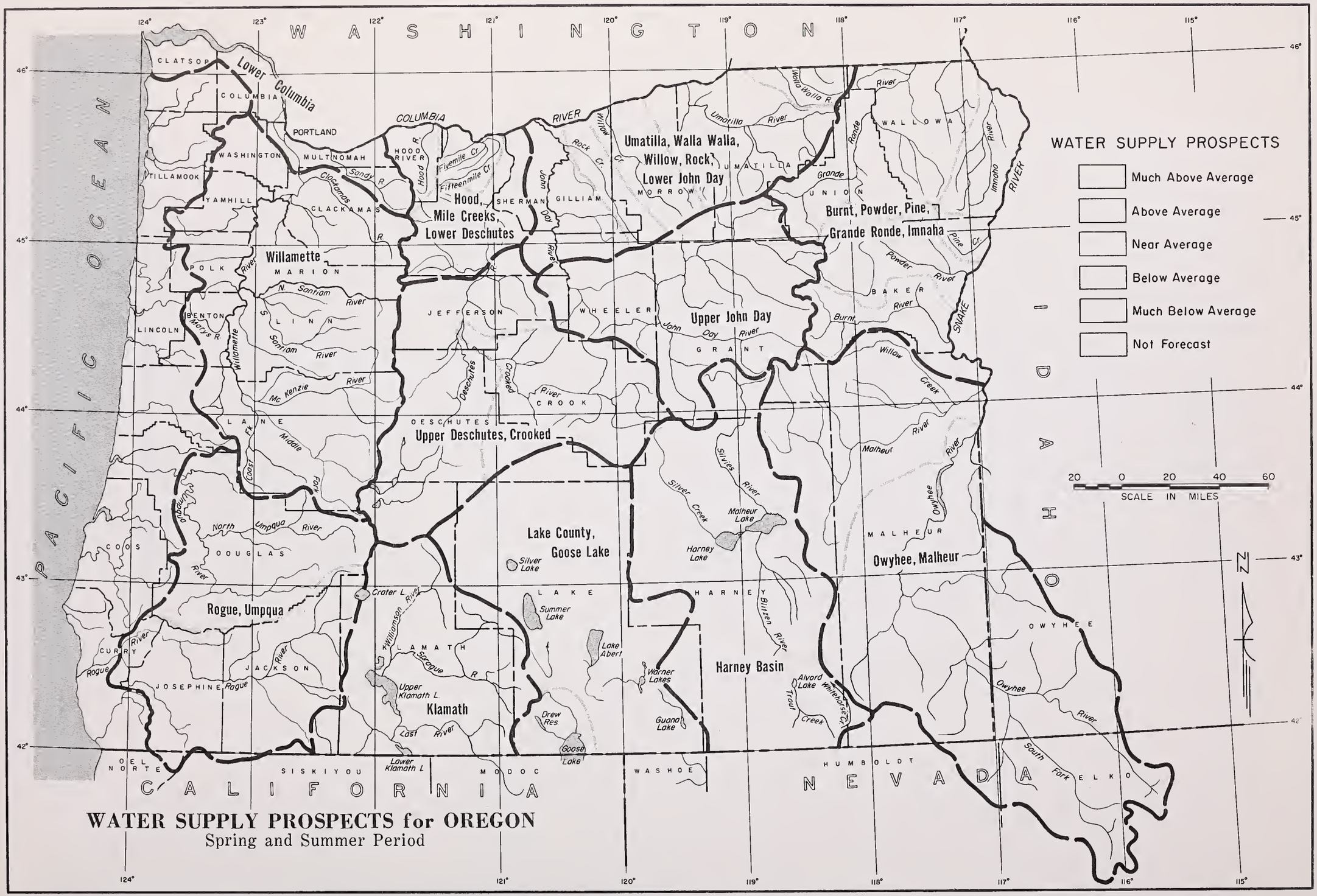


WATERSHED AREA LOCATIONS



WATER SUPPLY PROSPECTS for OREGON

Spring and Summer Period

WATER SUPPLY OUTLOOK for OREGON

JANUARY 1, 1969

Near average water supplies are the outlook for Oregon in 1969. Carry-over storage in most of Oregon's reservoirs is poor and about 20 percent less than last year. Soil moisture is above average and will benefit the snowmelt runoff.

SNOW COVER

Mountain snowpacks are above average and vary from 133 percent of average in Wallowa, Union and Baker Counties to 214 percent of average in Hood River and Wasco Counties.

PRECIPITATION

Precipitation, as reported by the U. S. Weather Bureau for the November-December winter period, ranged over the State from 100 percent in Klamath County to 160 percent in Harney and Malheur Counties.

STREAMFLOW

Except for the Rogue and Klamath Basins, most streams in the State have partially recovered from the low flows of 1968. Representative streamflow* for Oregon, October through December, is as follows:

	A. F.	% 1953-67 Avg.
Owyhee Reservoir net inflow	58,600	97%
Umatilla at Pendleton	66,400	130%
John Day at Service Creek	177,300	128%
Deschutes at Moody	1,026,000	90%
Grande Ronde at La Grande	22,700	119%
Willamette, Mid. Fk. blw. North Fork	649,100	119%
Umpqua near Elkton	1,918,100	122%
Rogue at Raygold	381,100	68%
Klamath Lake net inflow	280,400	69%

*Data furnished by U. S. Geological Survey, Pacific Power and Light Co., and North and South Boards of Control of the Owyhee Project.

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continued--

SOIL MOISTURE

Most soils are well wetted from the above average rainfall and will absorb less than average amounts of water from snowmelt.

SUMMARY

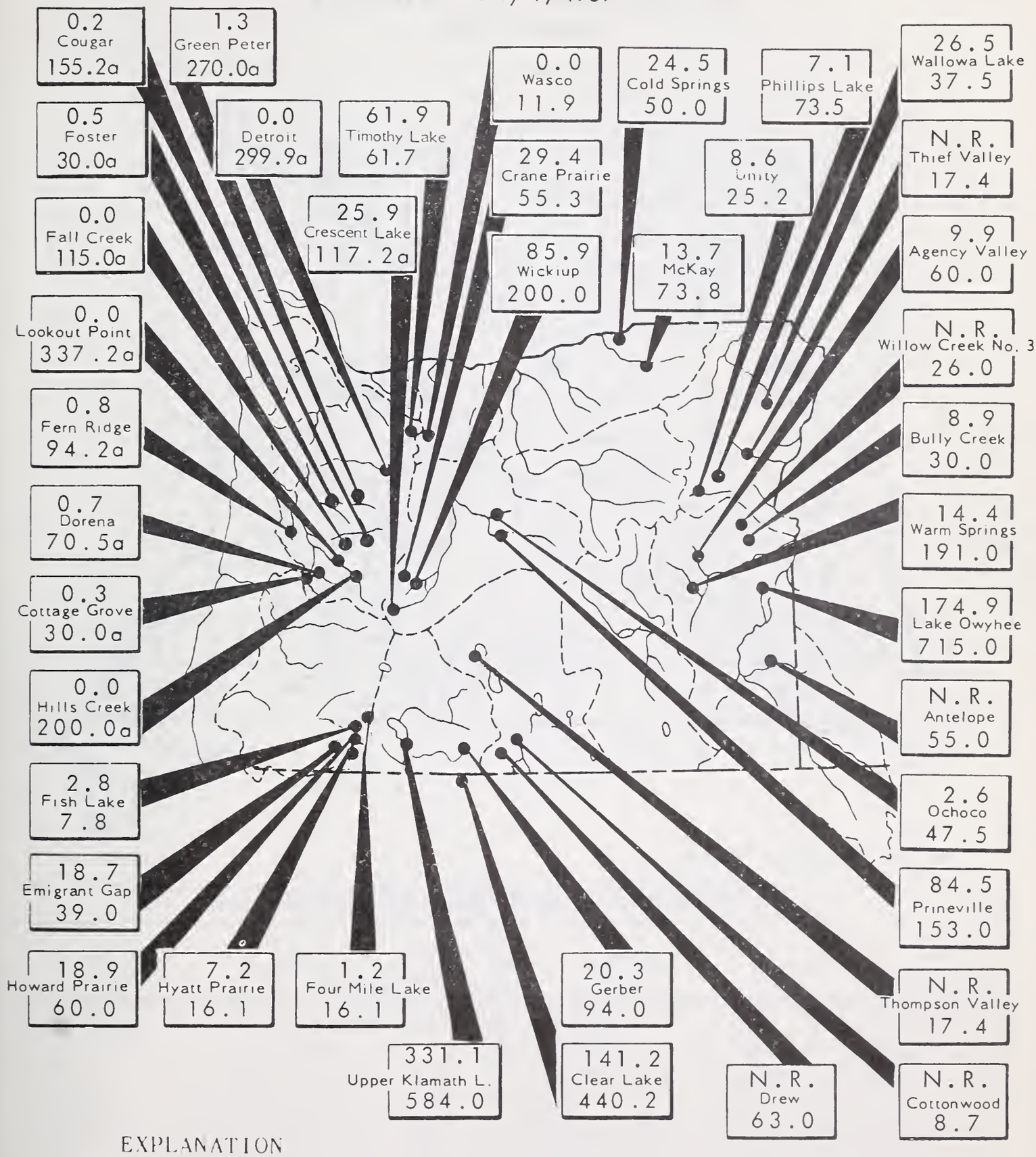
In summary, above average amounts of snow will be needed during the next several months to maintain the present excellent snowpack and to assure all Oregon water users near average water supplies next summer.

RESERVOIR STORAGE

Twenty-two Oregon reservoirs, on January 1, contained 1,113,000 acre feet of water or 73 percent of average. This is about 300,000 acre feet less than last year.

STORAGE STATUS of OREGON RESERVOIRS
usable contents in thousands of acre feet

January 1, 1969



EXPLANATION

687.0 Lake Owyhee 715.0 ---Contents / ---Capacity

(a) Multiple purpose reservoir - space reserved for flood runoff.
N. R. - No report.

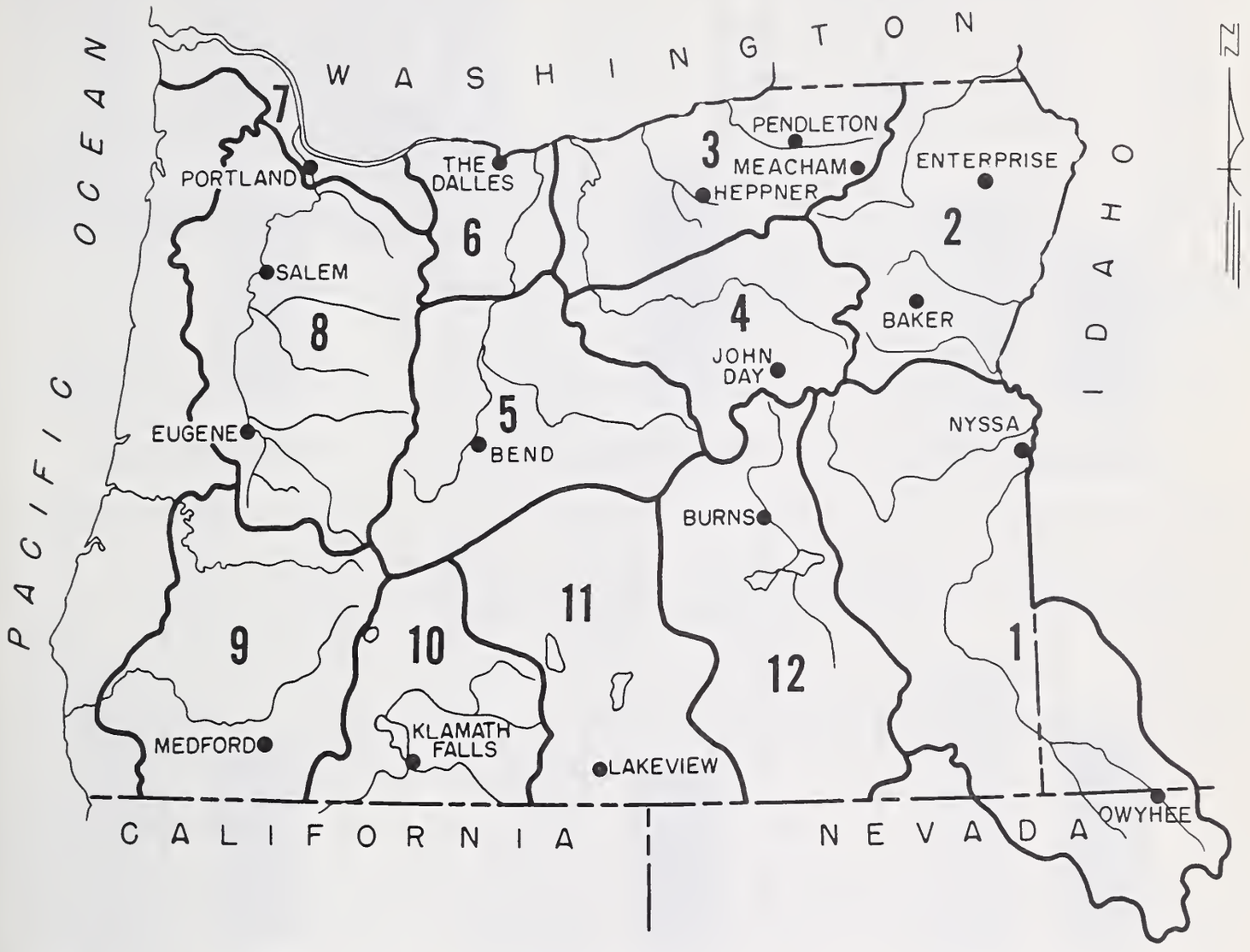
MOUNTAIN SOIL MOISTURE in OREGON
as percent of capacity
January 1, 1969

● Soil Moisture Station

**Moisture studies not yet developed in these areas.*

VALLEY PRECIPITATION in OREGON [a]

January 1, 1969

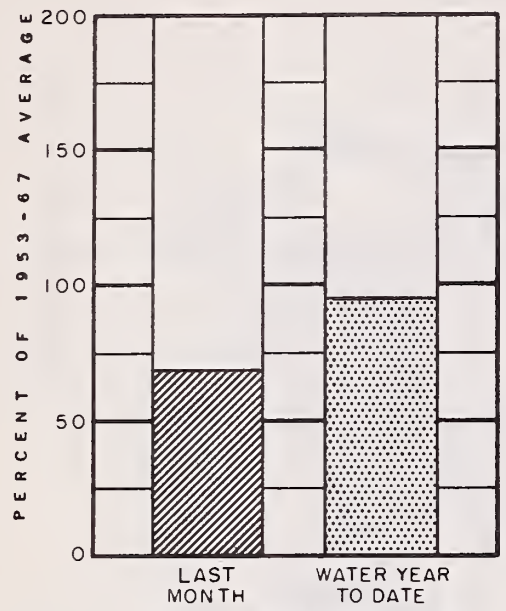


PRECIPITATION as PERCENT of the 1953-67 AVERAGE					
STATION	LAST MONTH	WATER [b] YEAR TO DATE	STATION	LAST MONTH	WATER [b] YEAR TO DATE
Baker Apt.	132	151	Lakeview	79	99
Bend	70	58	Meacham	132	103
Burns	111	108	Medford Apt.	71	73
Enterprise	97	122	Nyssa	141	118
Eugene Apt.	161	150	Pendleton Apt.	138	120
Heppner	140	138	Portland Apt	193	160
John Day	118	166	Salem Apt.	166	157
Klamath Falls Apt.	54	75	The Dalles	138	139
			Owyhee (Nevada)	187	170

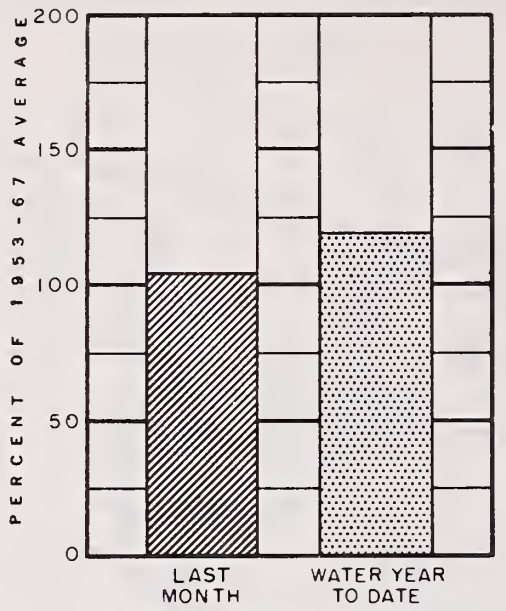
(a) Preliminary data furnished by the U.S. Weather Bureau. (b) Oct. 1 to date. (c) Report delayed.

CURRENT OREGON STREAMFLOW

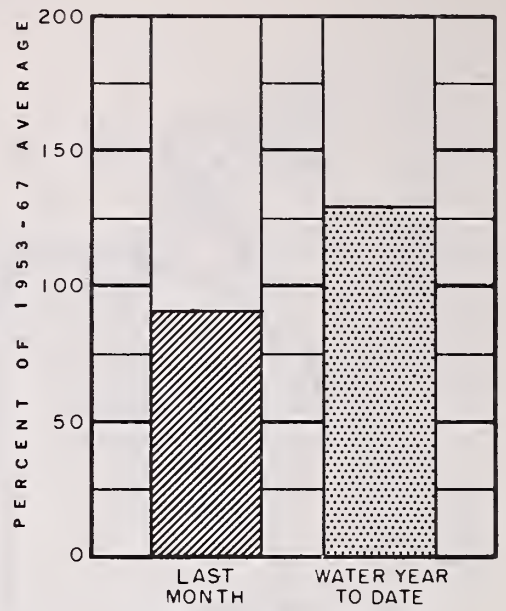
January 1, 1969



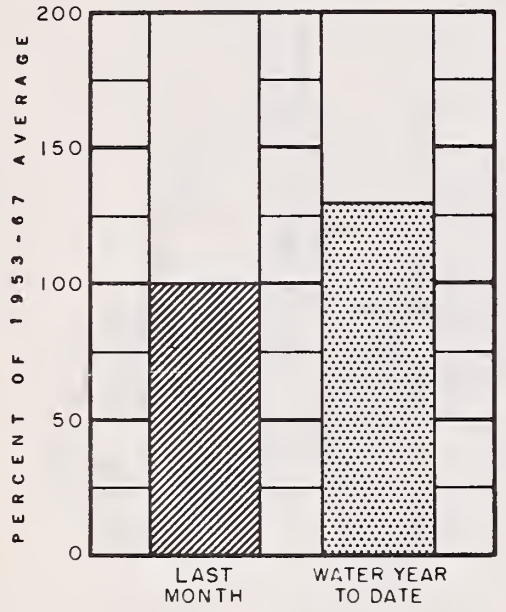
Owyhee Lake net inflow



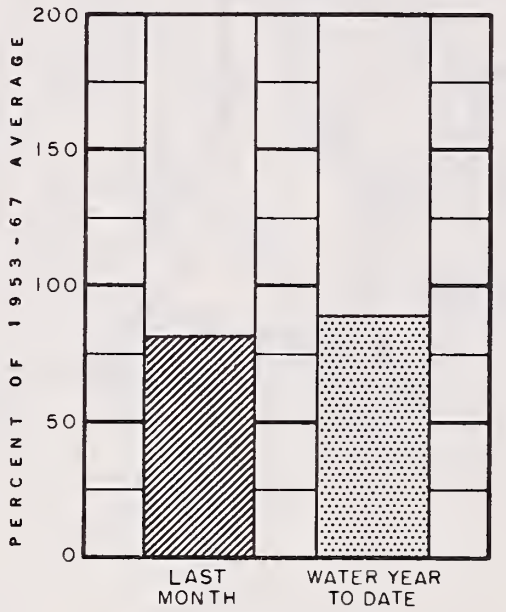
Grande Ronde at La Grande



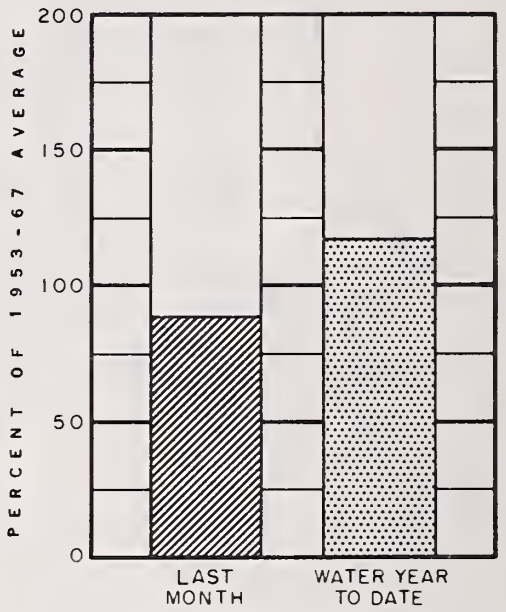
Umatilla at Pendleton



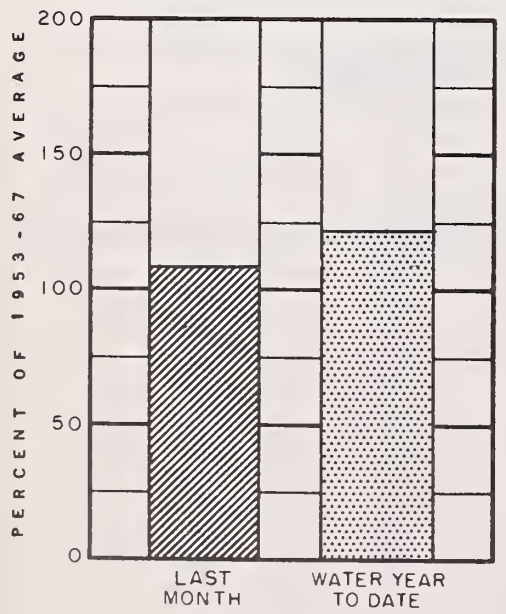
John Day at Service Creek



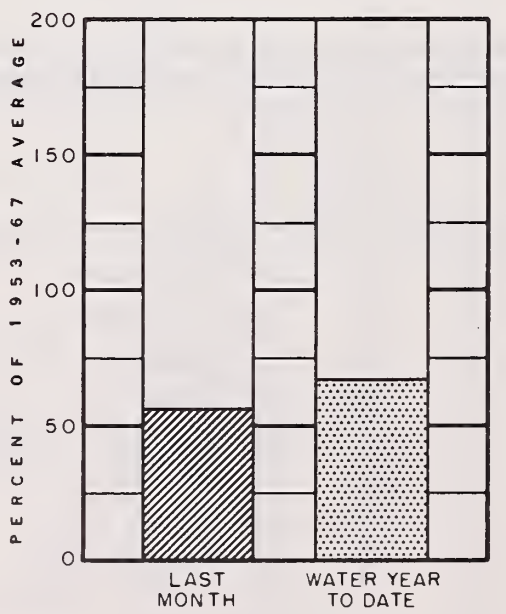
Deschutes at Moody



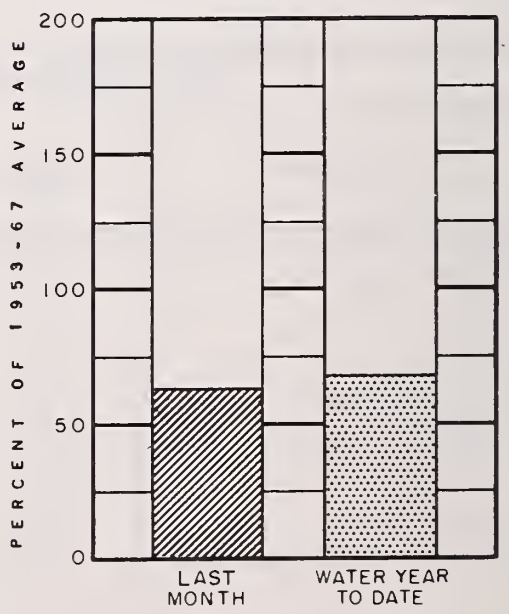
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



Rogue at Raygold



Upper Klamath Lake net inflow

Data furnished by U.S. Geological Survey; The Pacific Power and Light Co.; and North and South Boards of Control Owyhee Project.

WATER SUPPLY OUTLOOK
OWYHEE, MALHEUR WATERSHEDS
OREGON

as of

JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Near average water supplies can be expected by Malheur County water users in 1969.

SNOW COVER

The snowpack is 160 percent of average and, if present trends continue, should provide above average streamflow next summer.

PRECIPITATION

Precipitation during November and December was 168 percent of average, according to the U. S. Weather Bureau. This rainfall moistened dry soils and brought streamflows up to normal.

SOIL MOISTURE

Watershed soils are wetter than usual and will benefit the snowmelt runoff. Soils on the Malheur are 58 percent of capacity compared to last year's 43 percent, while those on the Owyhee are 86 percent, the same as the previous year.

RESERVOIR STORAGE

Warmsprings, Agency Valley and Bully Creek Reservoirs contain 33,200 acre feet of water or 35 percent of the average. Lake Owyhee's contents on January 1 were 167,000 acre feet or 53 percent of average.

STREAMFLOW

Flow into Owyhee Reservoir during the period October through December was 58,600 acre feet or 97 percent of average. Above average streamflow is needed during the coming months to provide adequate water supplies and to replenish depleted reservoir storage.

Report prepared by
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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Boulder Creek Bully Creek Cow Creek Jordan Creek Jordan Valley Irrig. Dist. McDermitt Creek Oregon Canyon Creek Owyhee Project Succor Creek Tenmile Creek Vale-Oregon Irrig. Dist. Warmsprings Irrig. Dist. Willow Creek (Reservoired)	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Agency Valley	60.0	9.9	16.2	17.4
Antelope	55.0	*b*	5.6	4.0
Bully Creek	30.0	8.9	11.2	- -
Owyhee	715.0	174.9	358.6	330.8
Warmsprings	191.0	14.4	71.9	62.0
Willow Creek #3	26.0	*b*		

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
1780	Jordan Creek above Lone Tree Creek	*c*			
2140	Malheur near Drewsey	*c*			
2175	Malheur, North Fork at Beulah *d*	*c*			
1825	Owyhee Reservoir net Inflow *k*	*c*			
	NOTE: FORECASTS BEGIN ON FEB. 1, 1969				

SOIL MOISTURE

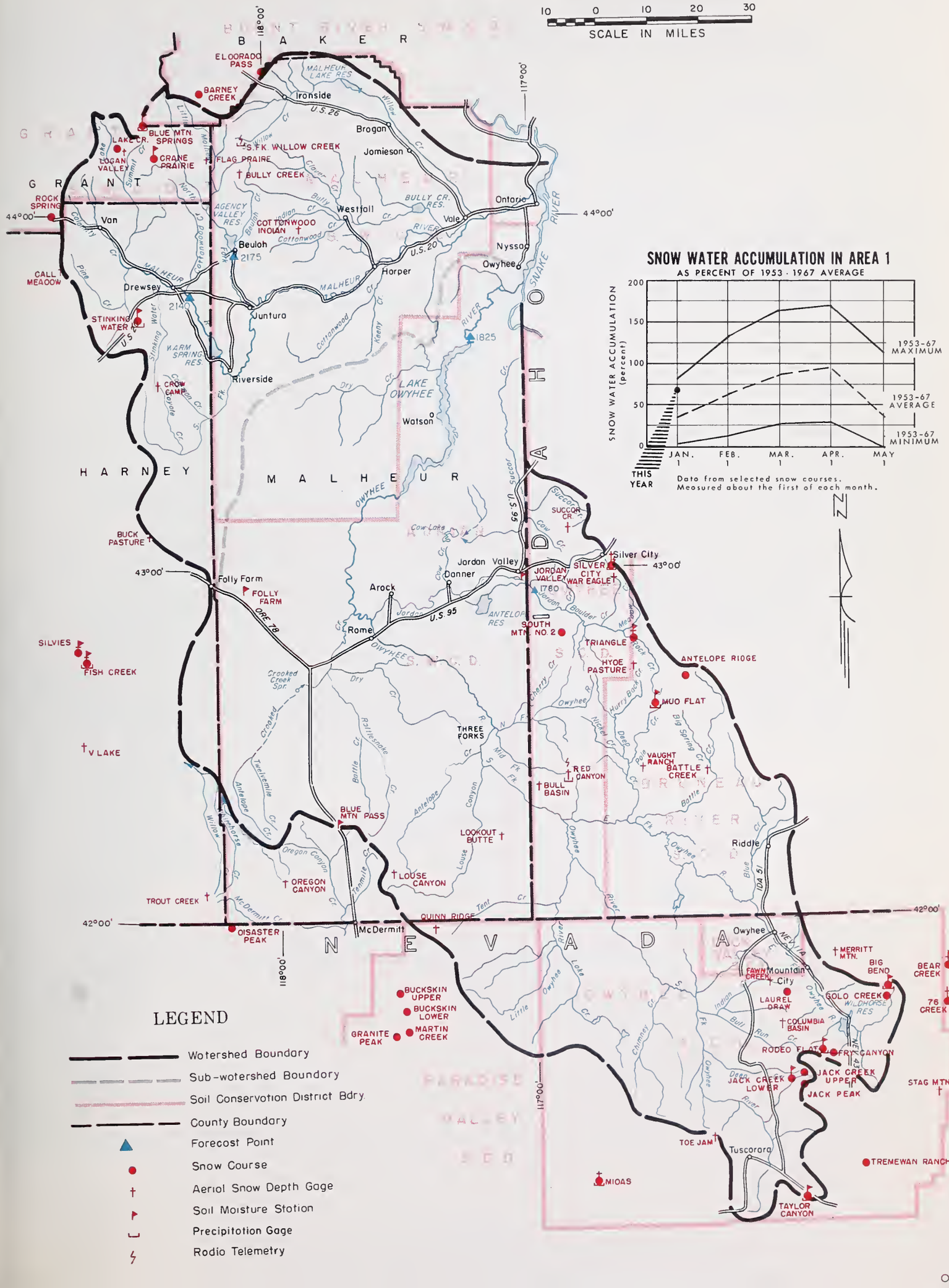
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Bear Creek (Nev.)	7800	72	16.8	*c*			
Big Bend (Nev.)	6700	48	16.7	1-2-69	16.0	14.7	15.3
Blue Mtn. Springs	5900	42	16.9	12-30-68	9.9	7.2	7.8
Crane Prairie	5375	48	18.2	*c*			
Folly Farm	4450	30	12.5	*c*			
Jack Creek, Lower (Nev.)	6800	48	8.6	*c*			
Jordan Valley	4390	48	19.3	1-3-69	14.3	14.6	- -
Mud Flat (Ida.)	5500	48	12.8	*c*			
Rodeo Flat (Nev.)	6800	42	11.0	12-31-68	10.7	10.5	10.5
Stinking Water Summit	4800	48	21.9	12-31-68	21.5	- -	- -
Taylor Canyon (Nev.)	6200	48	15.1	12-30-68	12.4	14.5	11.9
Triangle (Ida.)	5150	48	16.6	*c*			

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1953-1967 AVERAGE
Antelope Ridge (Ida.)	5900	*c*				
Barney Creek	5950	*c*				
Battle Creek (Ida.)	5700	*c*				
Bear Creek *e* (Nev.)	7800	12/27	37	8.8	8.2	6.6 *h*
Big Bend (Nev.)	6700	1/2	25	5.5	T	2.6 *h*
Blue Mountain Springs	5900	12/30	35	7.2	3.5	5.6 *h*
Buck Pasture	5700	*c*				
Buckskin, Lower (Nev.)	6700	*c*				
Buckskin, Upper (Nev.)	7200	*c*				
Bull Basin (Ida.)	5600	*c*				
Bully Creek	5300	*c*				
Call Meadow	5340	*c*				
Columbia Basin (Nev.)	6650	*c*				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- Soil Moisture Station
- Precipitation Gage
- Rodio Telemetry

OR-1c

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches): LAST YEAR	PAST RECORD: WATER CONTENT (Inches): 1953-1967 AVERAGE
Cottonwood-Indian	4320	*c*				
Crane Prairie	5375	*c*				
Crow Camp	5500	*c*				
Disaster Peak (Nev.)	6500	*c*				
Eldorado Pass	4600	12/30	16	2.1	0.1	1.2 *h*
Fawn Creek (Nev.)	7000	*c*				
Fish Creek	7900	*c*				
Flag Prairie	4750	*c*				
Fox Creek (Nev.)	6800	*c*				
Fry Canyon (Nev.)	6700	1/2	33	6.4	1.7	2.3 *h*
Gold Creek (Nev.)	6600	1/2	20	4.0	0.0	1.6 *h*
Granite Peak (Nev.)	7800	*c*				
Hyde Pasture (Ida.)	5800	*c*				
Jack Creek, Lower (Nev.)	6800	*c*				
Jack Creek, Upper (Nev.)	7250	*c*				
Jack Peak (Nev.)	8420	*c*				
Lake Creek	5120	12/30	24	5.0	2.4	3.7 *h*
Laurel Draw (Nev.)	6700	*c*				
Logan Valley	5100	12/31	20	4.5	- -	- -
Lookout Butte	5650	*c*				
Louse Canyon	6440	*c*				
Martin Creek (Nev.)	6700	*c*				
Merritt Mountain (Nev.)	7000	*c*				
Midas (Nev.)	7200	*c*				
Mud Flat (Ida.)	5500	*c*				
Oregon Canyon	6950	*c*				
Quinn Ridge (Nev.)	6300	*c*				
Red Canyon (Ida.)	6500	*c*				
Rock Spring	5100	12/31	16	2.3	0.7	1.5
Rodeo Flat (Nev.)	6800	1/2	27	5.7	T	2.4 *h*
76 Creek (Nev.)	7100	*c*				
Silver City (Ida.)	6400	1/3	28	7.3	4.1	4.9 *h*
Silvies	6900	*c*				
South Mountain #2 (Ida.)	6340	1/3	27	7.4	2.2	3.6
Stag Mountain (Nev.)	7800	*c*				
Stinking Water	4800	12/31	15	2.5	1.7	1.3 *h*
Succor Creek (Ida.)	6100	*c*				
Taylor Canyon (Nev.)	6200	12/30	22	3.4	T	1.6 *h*
Toe Jam (Nev.)	7700	*c*				
Tremewan Ranch (Nev.)	5700	12/30	17	2.8	T	0.4 *h*
Triangle (Ida.)	5150	*c*				
Trout Creek	7800	*c*				
"V" Lake	6600	*c*				
Vaught Ranch (Ida.)	5950	*c*				
War Eagle (Ida.)	7700	*c*				

Area 2

WATER SUPPLY OUTLOOK
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS
OREGON

as of
JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Near average water supplies can be expected by Baker, Union and Wallowa County water users in 1969.

SNOW COVER

The snowpack is 133 percent of average, almost double that of last year, and should provide good streamflow next summer.

SOIL MOISTURE

Soils are wetter than usual because of excellent precipitation to date. The profile is about 80 percent of capacity, which is better than the last two years.

RESERVOIR STORAGE

Unity Reservoir currently contains 8,600 acre feef of water compared to an average of 6,500. Wallowa Lake contains 26,500 acre feet or 129 percent of average.

STREAMFLOW

Flow* of the Grande Ronde at La Grande for the October-December period was 119 percent of average indicating some recovery from the low flows of last summer.

SUMMARY

Average precipitation will be needed during the next few months to maintain the excellent snowpack and assure good water supplies during the coming summer.

*Provisional data furnished by U. S. Geological Survey, Portland, Oregon.

Report prepared by
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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Alder Slope		
Baker Valley		
Big Creek		
Clover Cr. (nr. N. Powder)		
Cove		
Durkee		
Eagle Valley	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	
Elgin		
Enterprise-Joseph		
Hereford-Bridgeport		
Imnaha River		
La Grande-Island City		
Lostine-Wallowa		
No. Powder River-Wolf Cr.		
Pine Valley		
Powder River-Elk Creek		
Summerville		
Sumpter Valley		
Union-Hot Lake		
Unity		

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Thief Valley	17.4	*b*		
Unity	25.2	8.6	9.3	6.5
Wallowa Lake	37.5	26.5	21.8	20.5
Phillips Lake	73.5	7.1	- -	- -

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3305	Bear near Wallowa	*c*			
2730	Burnt near Hereford *d*	*c*			
3200	Catherine near Union	*c*			
2882	Eagle Creek abv. Skull Creek	*c*			
3190	Grande Ronde at LaGrande	*c*			
3295	Hurricane near Joseph	*c*			
2920	Imnaha at Imnaha	*c*			
3300	Lostine near Lostine	*c*			
2755	Powder near Baker	*c*			
3250	Wallowa, East Fork near Joseph *d*	*c*			

NOTE: FORECASTS BEGIN ON FEB. 1, 1969

SOIL MOISTURE

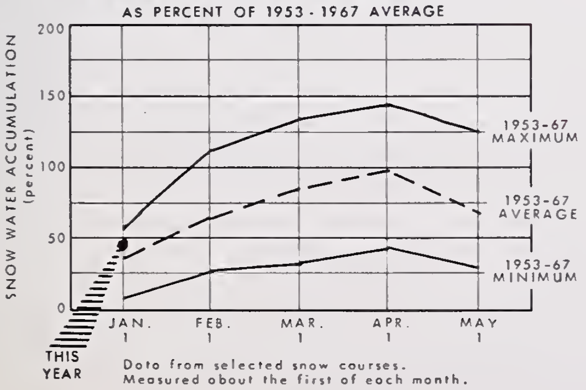
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Blue Mtn. Summit	5100	36	16.8	*b*		9.9	9.9
Dooley Mountain	5430	36	9.2	12-24-68	2.5	- -	2.5
Emigrant Springs	3925	48	22.3	12-27-68	19.5	14.8	17.1
Ladd Summit	3730	48	18.9	12-24-68	9.7	- -	10.0
Moss Springs	5850	42	25.8	12-27-68	14.4	- -	- -
Tollgate	5070	48	23.6	12-31-68	18.1	18.2	18.6

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

SNOW WATER ACCUMULATION IN AREA 2

AS PERCENT OF 1953 - 1967 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- ● Snow Course
- Soil Moisture Station
- † Aerial Snow Depth Gage
- Precipitation Gage

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1953-1967 AVERAGE
Aneroid Lake #1	7480	*c*				
Aneroid Lake #2	7300	*c*				
Anthony Lake	7125	12/30	47	12.6	9.2	11.0
Bald Mountain (Ore.)	6700	*c*				
Barney Creek	5950	*c*				
Beaver Reservoir	5340	12/26	22	3.8	5.1	3.7*h*
Big Sheep	6200	*c*				
Blue Mountain Summit	5098	12/30	24	4.2	1.9	2.9
Bourne	5800	*c*				
County Line	4800	12/31	18	3.2	1.2	2.2
Dooley Mountain	5430	12/24	20	5.0	3.5	3.1
Eilertson Meadows	5400	12/26	29	4.6	4.2	4.4
Eldorado Pass	4600	12/30	16	2.1	0.1	1.2*h*
Gold Center	5340	*c*				
Goodrich Lake	6775	*c*				
Intake House	4930	12/26	31	5.0	6.3	- -
Little Alps	6200	12/30	38	8.7	4.2	4.8*h*
Little Antone	5000	12/30	25	4.5	3.0	- -
Lucky Strike	5050	*c*				
Meacham	4300	12/27	22	5.0	2.5	2.5*h*
Mirror Lake	8200	*c*				
Moss Springs	5850	12/27	43	10.5	- -	9.0*h*
Power Plant	3990	12/26	18	2.6	3.7	- -
Schneider Meadows	5400	*c*				
Schoolmarm	4775	12/31	16	3.0	0.7	1.8
Standley	7400	*c*				
Taylor Green	5740	*c*				
Tipton	5100	12/30	25	4.3	2.2	3.8
Tollgate	5070	12/31	52	13.4	4.0	8.1
TV Ridge	7000	*c*				

Area 3

WATER SUPPLY OUTLOOK
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS
OREGON

as of
JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, ranchers and other water users in Umatilla, Morrow and Gilliam Counties can expect near average water supplies in 1969.

SNOW COVER

Snowfall so far this winter has been excellent and the snowpack is now 182 percent of average.

SOIL MOISTURE

Because of above average precipitation, soils are now well wetted. Profiles are about 80 percent of capacity compared to 70 percent last year.

RESERVOIR STORAGE

McKay Reservoir currently contains 13,700 acre feet of water, 85 percent of average, while storage in Cold Springs is 24,500 acre feet or 121 percent of average.

STREAMFLOW

Flow* of the Umatilla River at Pendleton for the period October through December was 130 percent of average.

SUMMARY

Average snowfall is needed during the next several months to maintain the snowpack and to assure good water supplies during the coming summer.

*Provisional data provided by the U. S. Geological Survey, Portland, Oregon.

Report prepared by
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WATER SUPPLY OUTLOOK expressed as "Paar", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Walla Walla River, No. Fk. Walla Walla River, So. Fk. Walla Walla River, Main Walla Walla River, Little Couse Creek Dry Creek Pine Creek Umatilla River, Main Wildhorse Creek Umatilla R. (Cold Springs Reservoir) Umatilla River (McKay Res.) McKay Creek Birch Creek Butter Creek Willow Creek Rhea Creek Rock Creek (John Day tributary)	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Cold Springs	50.0	24.5	12.1	20.2
McKay	73.8	13.7	12.0	16.1

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
0320	Butter Creek near Pine City	*c*			
0225	McKay near Pilot Rock	*c*			
0200	Umatilla near Gibbon	*c*			
0210	Umatilla at Pendleton	*c*			
0110	Walla Walla, North Fork near Milton	*c*			
0100	Walla Walla, South Fork near Milton	*c*			
	NOTE: FORECASTS BEGIN ON FEB. 1, 1969				

SOIL MOISTURE

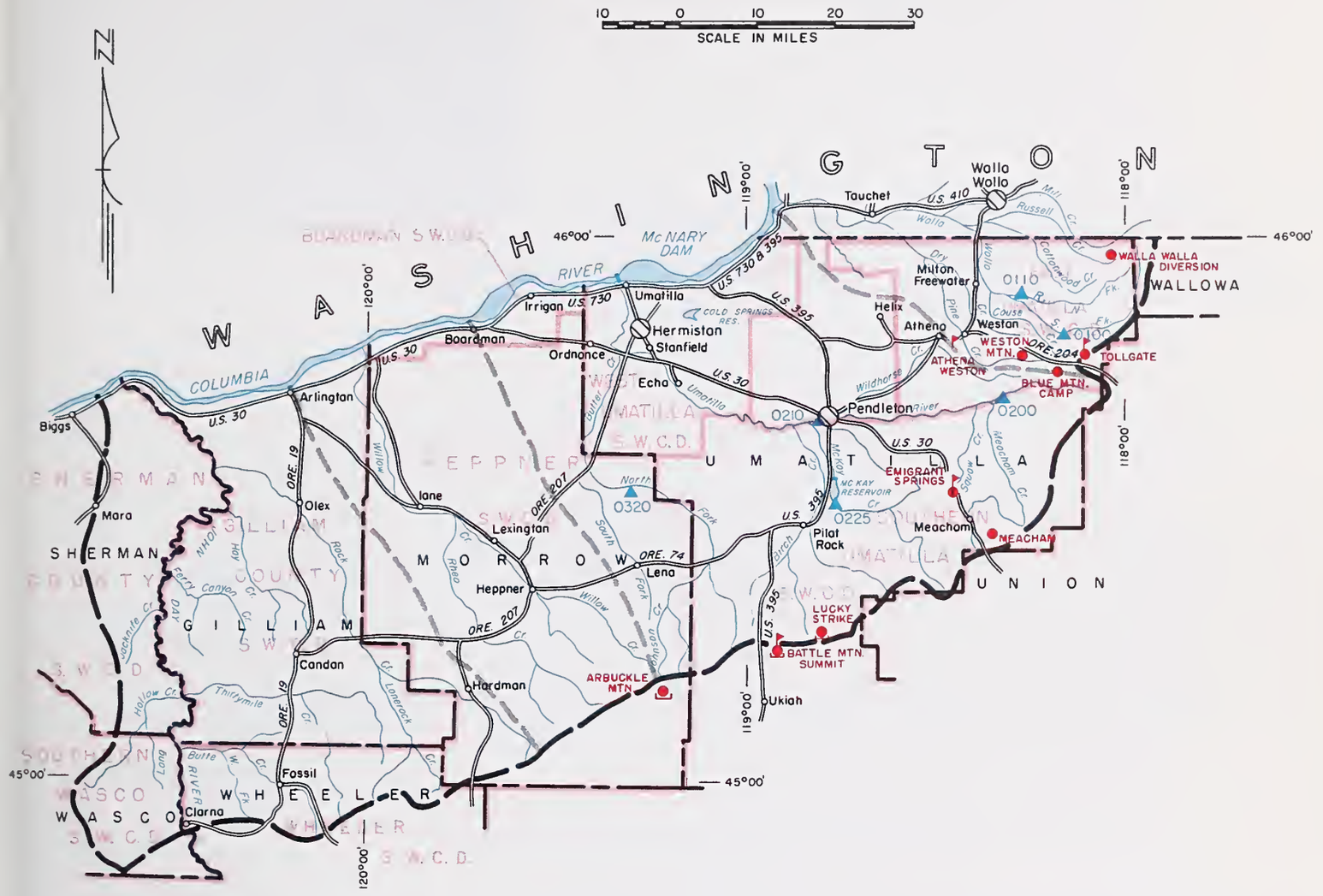
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Athena-Weston	1700	48	18.7	12-31-68	11.9	11.4	10.9
Battle Mtn. Summit	4340	48	13.8	12-27-68	12.9	10.9	12.7
Emigrant Springs	3925	48	22.3	12-27-68	19.5	14.8	17.1
Tollgate	5070	48	23.6	12-31-68	18.1	18.2	18.6

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1953-1967 AVERAGE
Arbuckle Mountain	5400	*c*				
Battle Mountain Summit	4340	12/27	10	1.4	1.0	0.9 *m*
Blue Mountain Camp	4300	12/31	35	8.8	1.8	3.5 *m*
Emigrant Springs	3925	12/27	18	4.2	4.1	1.8 *h*
Lucky Strike	5050	*c*				
Meacham	4300	12/27	22	5.0	2.5	2.5 *h*
Tollgate	5070	12/31	52	13.4	4.0	8.1
Walla Walla Diversion	2400	*b*				
Weston Mountain	2700	12/31	8	0.4	0.0	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

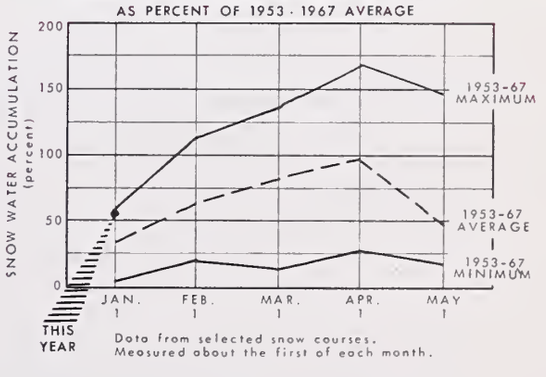


LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station
- Precipitation Gage

SNOW WATER ACCUMULATION IN AREA 3

AS PERCENT OF 1953 - 1967 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

Umatilla, Walla Walla, Willow, Rock, Lower John Day Watersheds

"The Conservation of Water begins with the Snow Survey"

Area 4

WATER SUPPLY OUTLOOK
UPPER JOHN DAY WATERSHEDS
OREGON

as of

JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, ranchers and other water users in Grant and Wheeler Counties can expect near average water supplies in 1969.

SNOW COVER

Snowfall so far this winter has been excellent and the snowpack is now 142 percent of average.

SOIL MOISTURE

Because of above average precipitation, soils are now well wetted. Profiles are 80 percent of capacity compared to 60 percent last year.

STREAMFLOW

Flow* of the John Day River at Service Creek for the period October through December was 128 percent of average.

The above factors indicate that, with average snowfall during the next several months, good water supplies will be assured for the John Day Basin next summer.

*Provisional data provided by the U. S. Geological Survey, Portland, Oregon.

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WATER SUPPLY OUTLOOK expressed os "Poor","Foir" "Averoge" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Beech Creek Beech Creek-Fox-Long Cr. Bridge-Mountain Creeks Camas Creek Cherry Creek Indian-Pine Creeks John Day River, Main Fork John Day River, Mid. Fork John Day River, N. Fork John Day River, S. Fork Monument-Kimberly Strawberry Creek	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

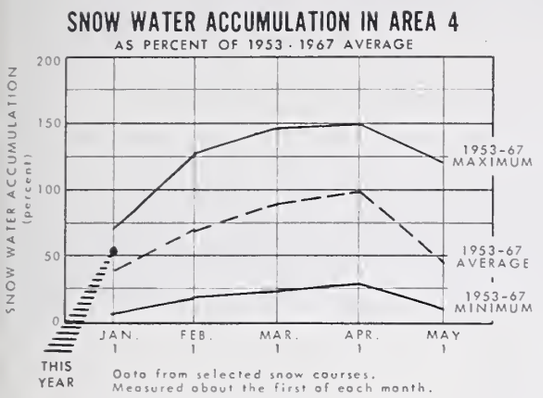
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
0385	John Day at Prairie City	*c*			
0440	John Day, Middle Fork at Ritter	*c*			
0375	Strawberry near Prairie City	*c*			
	NOTE: FORECASTS BEGIN ON FEB. 1, 1969				

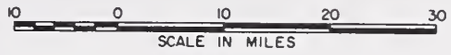
SOIL MOISTURE

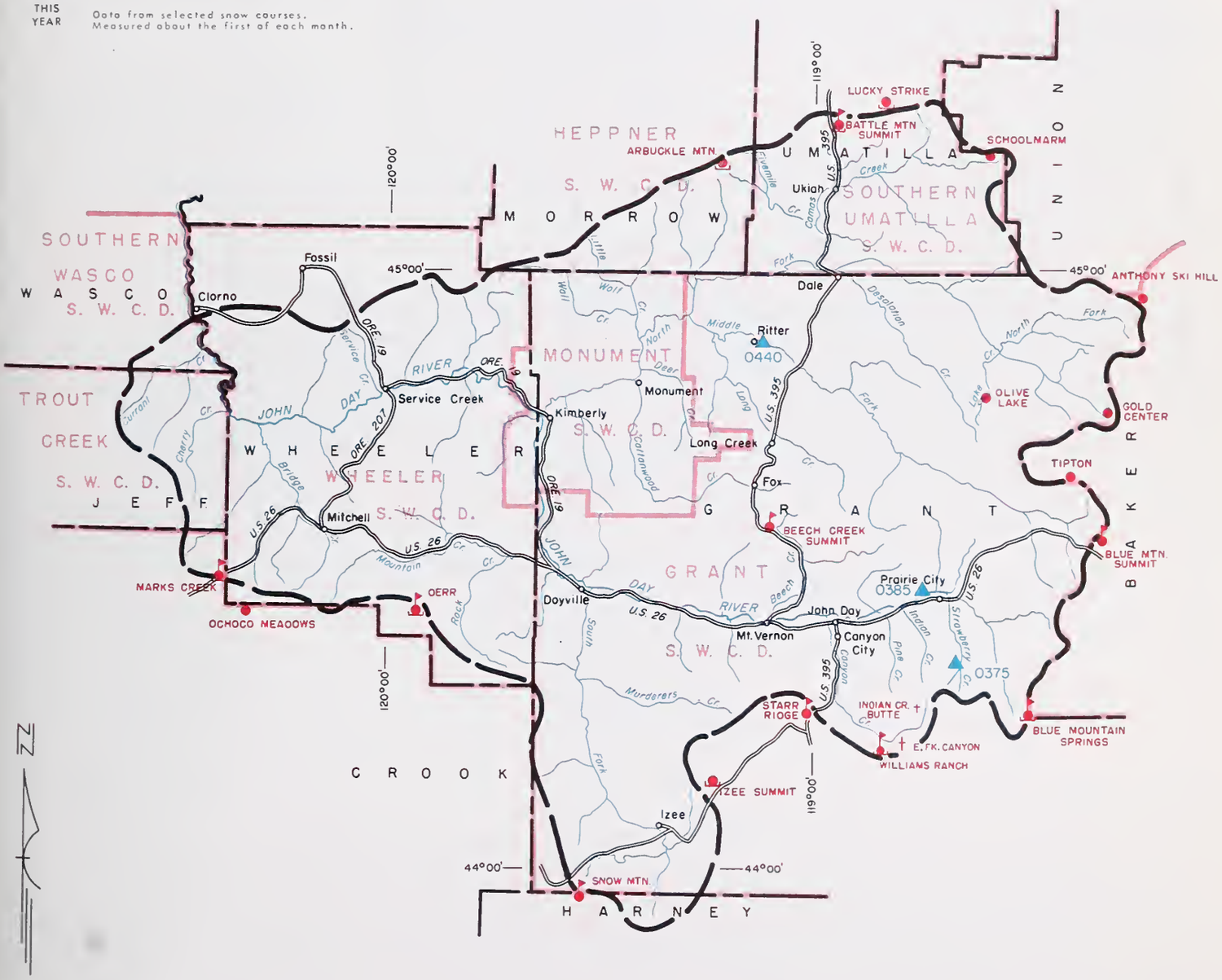
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Battle Mtn. Summit	4340	48	13.8	12-27-68	12.9	10.9	12.7
Beech Creek	4800	48	21.3	1-2-69	10.1	9.4	11.3
Blue Mountain Springs	5900	42	16.9	12-30-68	9.9	7.2	7.8
Blue Mountain Summit	5100	36	16.8	*b*		9.9	9.9
Derr	5670	24	9.0	*c*			
Marks Creek	4540	36	14.1	1-2-69	11.9	8.9	11.4
Snow Mountain	6300	48	16.7	*c*			
Starr Ridge	5150	36	10.6	1-2-69	10.6	7.5	10.0
Williams Ranch	4500	42	17.9	1-2-69	17.7	- -	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER JOHN DAY WATERSHEDS







LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- ● Snow Course
- ⚑ Soil Moisture Station
- † Aerial Snow Depth Gage
- ⌴ Precipitation Gage

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1953-1967 AVERAGE
Anthony Lake	7125	12/30	47	12.6	9.2	11.0
Arbuckle Mountain	5400	*c*				
Battle Mountain Summit	4340	12/27	10	1.4	1.0	0.9 *m*
Beech Creek Summit	4800	1/2	15	3.2	0.0	1.5 *h*
Blue Mountain Springs	5900	12/30	35	7.2	3.5	5.6 *h*
Blue Mountain Summit	5098	12/30	24	4.2	1.9	2.9
Derr	5670	*c*				
East Fork Canyon	5700	*c*				
Gold Center	5340	*c*				
Indian Creek Butte	6550	*c*				
Izee Summit	5293	1/2	20	4.1	1.6	2.5 *h*
Lucky Strike	5050	*c*				
Marks Creek	4540	1/2	17	3.2	1.7	1.3 *m*
Ochoco Meadows	5200	*c*				
Olive Lake	6000	*b*				
Schoolmarm	4775	12/31	16	3.0	0.7	1.8
Snow Mountain	6300	*c*				
Starr Ridge	5150	1/2	15	3.0	0.8	2.0 *h*
Tipton	5100	12/30	25	4.3	2.2	3.8
Williams Ranch	4500	*c*				

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
UPPER DESCHUTES, CROOKED WATERSHEDS
OREGON

as of
JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Most farmers, ranchers and other water users in the mid-State area can expect near average water supplies in 1969. Possible shortages exist in the Crooked River Basin.

SNOW COVER

The mountain snowpack is 137 percent of average and should provide good streamflow next summer.

SOIL MOISTURE

Soils are well wetted from above average rainfall. Profiles are about 80 percent of capacity compared to 60 percent last year.

RESERVOIR STORAGE

However, stored water supplies are below average. Ochoco Reservoir contains only 2,600 acre feet compared to an average of 19,200 acre feet on January 1. Prineville is holding 84,500 acre feet compared to an average of 103,500 acre feet.

Storage in Crane Prairie and Wickiup Reservoirs is 29,400 acre feet and 85,900 acre feet respectively. These compare to averages of 40,200 acre feet and 134,600 acre feet.

STREAMFLOW

Flow* of the Deschutes River at Moody for the October-December period was 90 percent of average.

The above factors indicate, with average snowfall during the next several months, good water supplies next summer.

More detailed snow surveys will be made on February 1 and any areas having possible water shortages will be indicated in another report issued at that time.

*Provisional data provided by U. S. Geological Survey, Portland, Oregon.

Report prepared by
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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Arnold Irrigation District Bear Creek Beaver Creek Camp Creek Central Ore. Irrig. Dist. Crooked River Deschutes River Hay-Trout Creeks Lone Pine Irrig. Dist. Mill Creek North Unit Irrig. Dist. Ochoco Creek Sisters Irrigation Dist. Snow Creek Irrigation Dist. Squaw Creek Irrig. Dist. Swalley Ditch Tumalo Project Walker Basin Irrig. Dist.	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Crane Prairie	55.3	29.4	29.6	40.2
Crescent Lake	86.9	25.9	44.4	44.3
Ochoco	47.5	2.6	14.9	19.2
Prineville	153.0	84.5	96.3	103.5
Wickiup	200.0	85.9	96.4	134.6

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
0535	Crane Prairie Reservoir total Inflow	c			
0600	Crescent at Crescent Lake *d*	c			
0795	Crooked near Post	c			
0645	Deschutes at Benham Falls *d*	c			
0500	Deschutes below Snow Creek	c			
0630	Deschutes, Little near Lapine *d*	c			
0848	Ochoco Reservoir net Inflow	c			
0555	Odell near Crescent	c			
0750	Squaw near Sisters	c			
0730	Tumalo near Bend *d*	c			

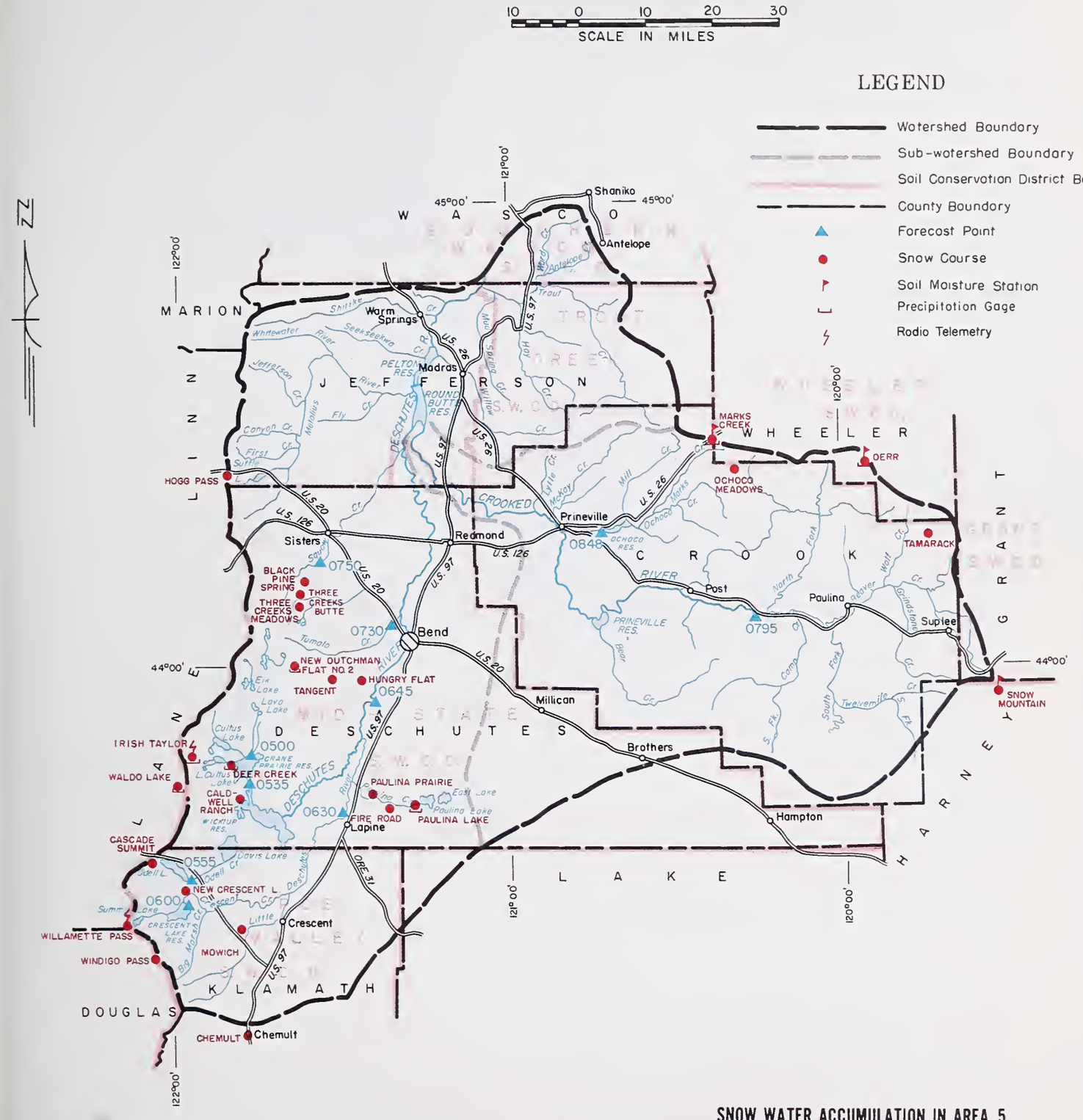
NOTE: FORECASTS BEGIN ON FEB. 1, 1969

SOIL MOISTURE

STATION NAME	STATION ELEVATION	PROFILE (Inches) DEPTH	PROFILE (Inches) CAPACITY	SOIL MOISTURE (Inches) DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Derr	5670	24	9.0	c		- -	- -
Marks Creek	4540	36	14.1	1-2-69	11.9	8.9	11.4
Snow Mountain	6300	48	16.7	c		- -	- -

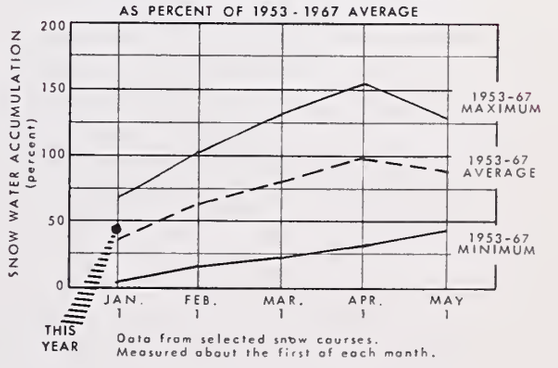
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 5

AS PERCENT OF 1953 - 1967 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1953-1967 AVERAGE
Black Pine Spring	4600	c				
Caldwell Ranch	4400	c				
Cascade Summit	4800	12/30	59	13.5	8.7	10.3
Chemult	4760	1/2	24	4.9	4.3	4.1
Deer Creek	4554	c				
Derr	5670	c				
Fire Road	5050	c				
Hogg Pass	4755	1/2	71	20.5	11.3	13.9
Hungry Flat	4400	12/31	18	3.0	3.3	- -
Irish Taylor	5500	c				
Marks Creek	4540	1/2	17	3.2	1.7	1.3 m
Mowich	4700	c				
New Crescent Lake	4800	c				
New Dutchman Flat #2	6400	12/31	74	24.0	10.6	- -
Ochoco Meadows	5200	c				
Paulina Lake	6330	c				
Paulina Prairie	4285	c				
Snow Mountain	6300	c				
Tamarack	4800	c				
Tangent	5400	12/31	38	9.6	7.4	- -
Three Creeks Butte	5200	c				
Three Creeks Meadow	5650	c				
Waldo Lake	5500	c				
Willamette Pass	5600	c				
Windigo Pass	5800	c				

WATER SUPPLY OUTLOOK
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS
OREGON

as of

JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, orchardists and other water users in Hood River and Wasco Counties can expect good water supplies this coming spring and summer.

SNOW COVER

Winter storms have deposited a snowpack far above average. The January first water content of the snowpack was 214 percent of average.

SOIL MOISTURE

Soils are well wetted from above average rainfall. Precipitation, according to the U. S. Weather Bureau, has been 150 percent of average for November and December.

If average amounts of snow are received during the next several months, above average water supplies can be expected next summer.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Aldridge Ditch (Tony Creek) Badger Creek Dee Irrigation District East Fork Irrig. Dist. Farmers Irrigation Dist. Hood River Irrig. Dist. Juniper Flat Middle Fork Irrig. Dist. Mile Creeks Mill Creek Mount Hood Irrig. Dist. Rock-Gate-Threemile Crs. Tygh Creek White River	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Clear Lake	11.9	b	0.0	- -

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
1210	Hood River near Hood River	c			
1185	Hood, West Fork near Dee	c			
1015	White below Tygh Valley	c			

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	1953-1967 AVERAGE
Brooks Meadows	4300	c				
Clear Lake	3500	12/30	41	8.4	2.0	2.6 h
Clear Lake (Experimental)	3500	12/30	52	9.8	3.8	4.9 h
Cooper Spur	3490	1/6	36	11.3	T	4.6 h
Greenpoint Reservoir	3400	c				
Knebal Springs	3850	c				
Lambert Point	7000	c				
Parkdale	1770	1/6	14	4.0	0.0	1.0 m
Phlox Point	5400	1/2	123	38.4	14.9	20.8
Red Hill	4400	c				
Still Creek	3670	1/3	65	19.0	5.8	7.1
Switchback	3255	c				
Tilly Jane	6000	c				
Ulrich Ranch Junction	3350	c				
Umbrella Falls	5400	12/31	132	33.8	15.4	- -
Upper Valley	2530	1/6	30	8.9	0.0	2.7 h

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

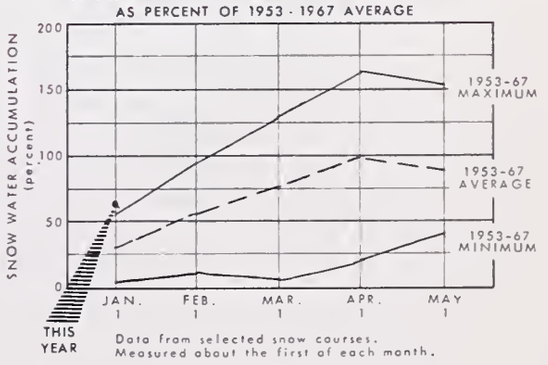
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- Soil Moisture Station
- Precipitation Gage
- Temperature Gage
- Radio Telemetry

SNOW WATER ACCUMULATION IN AREA 6

AS PERCENT OF 1953 - 1967 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

Hood, Mile Creeks, Lower Deschutes Watersheds

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
LOWER COLUMBIA WATERSHEDS
OREGON

as of

JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

The water supply outlook for major irrigated areas along the Columbia and its principal tributaries is very good. At present all areas can anticipate average or better streamflow during 1969.

Heavy early season snowpacks overlying wet soils indicate a possibility of future high water problems in parts of Idaho, Washington and Oregon.

SNOW COVER

Early season snowpack on the watersheds of Montana, Idaho, the eastern third of Washington and Oregon ranges from about 110 percent to 135 per cent of average. In the western two-thirds of Washington and Oregon snow cover is heavier, ranging from about 140 percent to over 200 percent of average. On many watersheds it is among the highest three to five years of record for this time of year.

SOIL MOISTURE

Soil moisture conditions are above average and in many areas are already at or near field capacity.

STREAMFLOW

Flow of the Columbia River at The Dalles, Oregon, as reported by the U. S. Geological Survey, has been above average for the fall months. The record by months for the 1969 water year is as follows:

Month	Percent of Average Discharge (1953-67)
October	119 (Adjusted for Storage)
November	128 " " "
December	104 " " "

Report prepared by
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STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
1057	Columbia at The Dalles	[c]			

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW[d] (1,000 A.F.) APR.— SEPT.	APR.— JUNE	MAY—JUNE	PEAK (1,000 c.f.s)	DATE
1946	108,100	75,400	59,600	581	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,400	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105,700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,903	65,112	622	June 10
1953-67 Avg.	105,181	72,408	59,689	574	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s)	DRAINAGE DISTRICT PUMPHOUSE SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES 118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

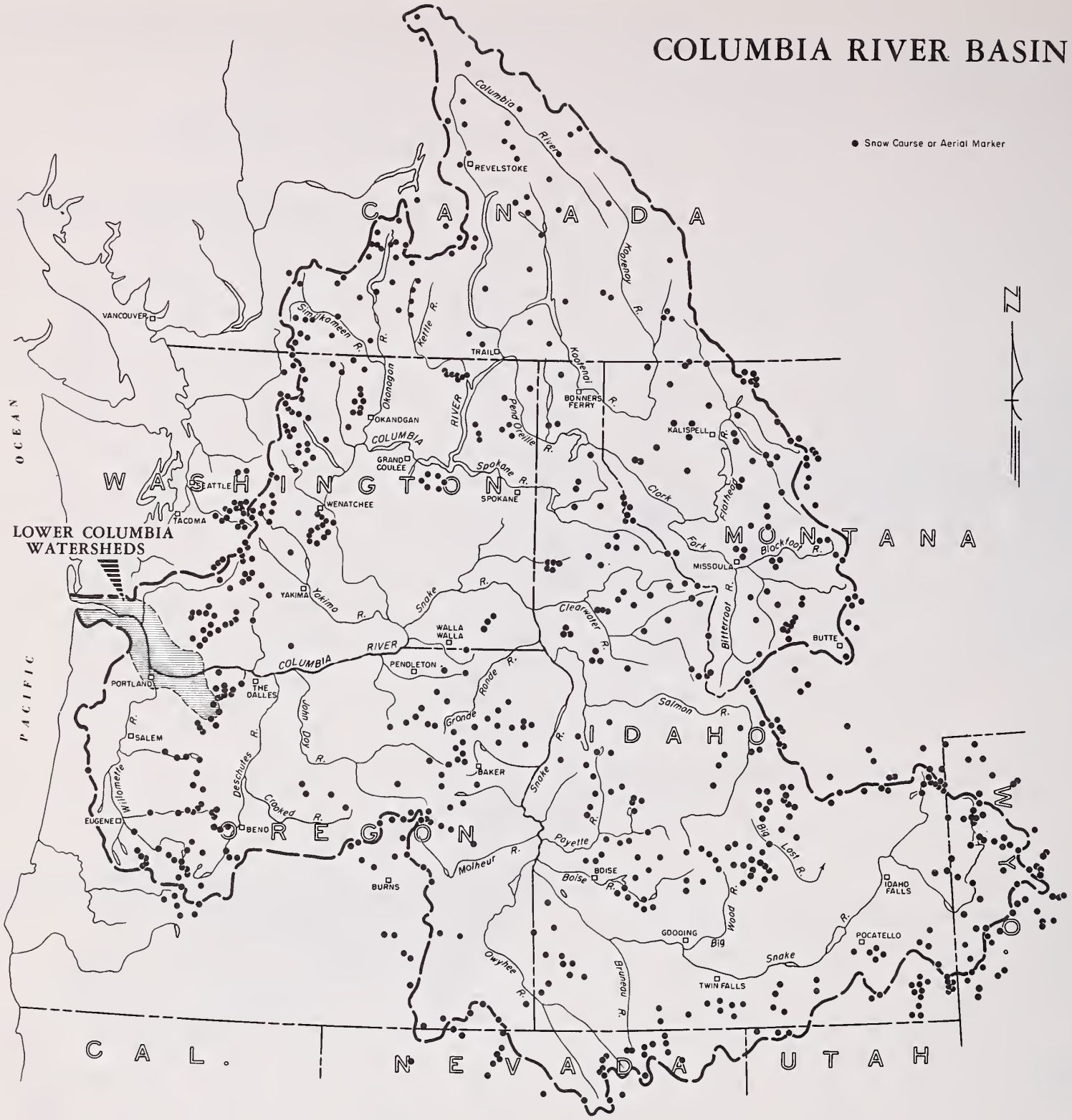
LOWER COLUMBIA WATERSHEDS

WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- (50) River Miles
- Snow Course
- Temperature
- Radio Telemetry

Lower Columbia Watersheds



"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
WILLAMETTE WATERSHEDS
OREGON

as of
January 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Willamette Valley farmers and water users can expect near average water supplies in 1969.

SNOW COVER

Winter storms have deposited generous amounts of snow on mountain watersheds. The January 1 snowpack was 160 percent of average.

SOIL MOISTURE

Soils are well wetted from above average rainfall. According to the U. S. Weather Bureau, precipitation for November and December was 130 percent of average.

RESERVOIR STORAGE

Most reservoirs in the Willamette Basin are currently at low levels in accordance with the usual operating plans which provide for interception of large amounts of flood water.

STREAMFLOW

Flow* of the Middle Fork of the Willamette below the North Fork for the period October through December was 119 percent of average. This indicates partial recovery from low 1968 flows.

If average amounts of snow are received during the next several months, good water supplies are the prospect for next summer.

*Provisional data furnished by the U. S. Geological Survey, Portland, Ore.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Foir" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Calapooya Clackamas McKenzie Molalla Santiam, North Santiam, South Willamette, Coast Fork Willamette, Middle Fork	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

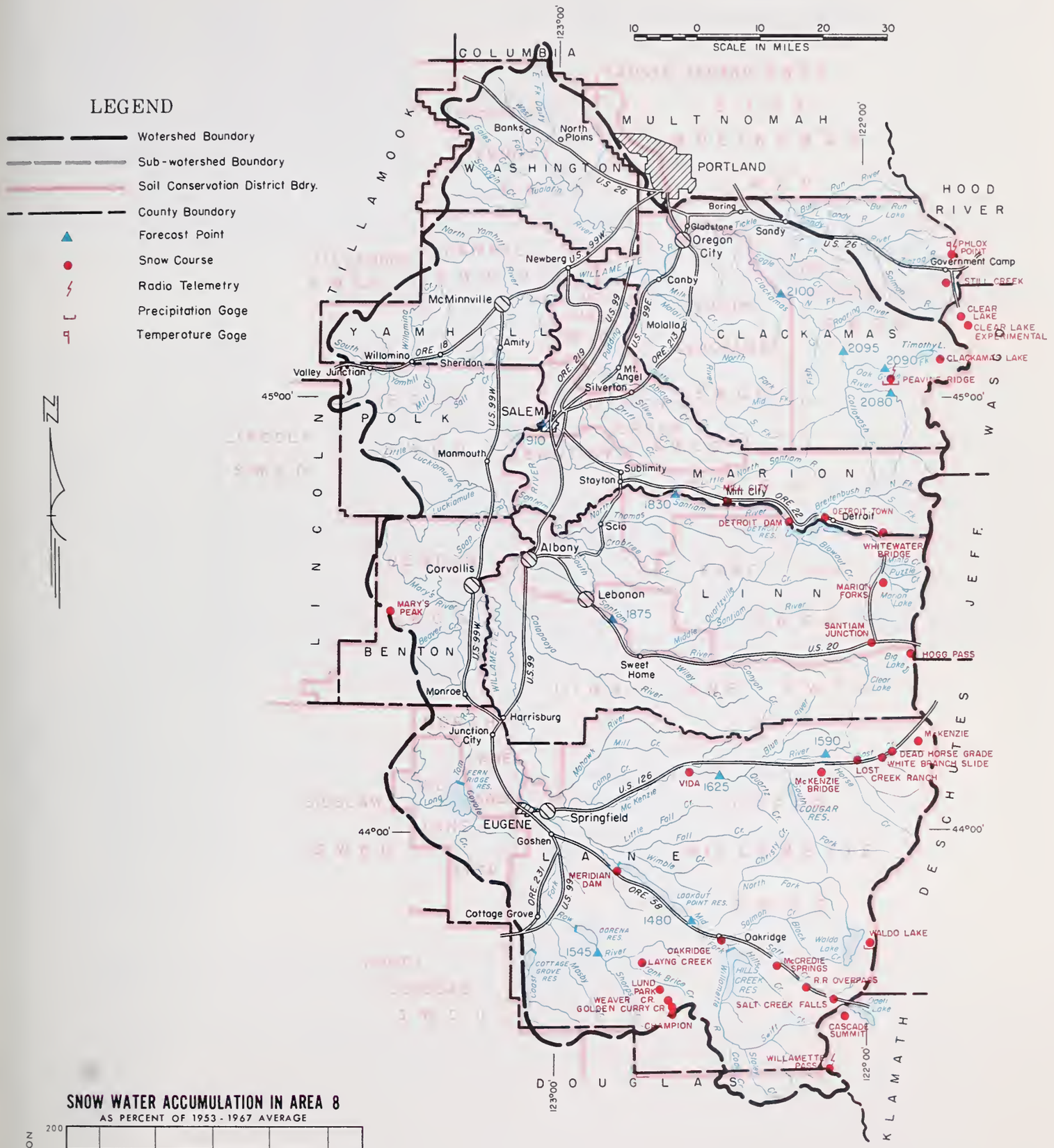
RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Cottage Grove	30.0*	0.3	0.0	2.2
Cougar	155.2*	0.2	0.0	- -
Detroit	299.9*	0.0	12.5	40.2
Dorena	70.5*	0.7	0.0	9.1
Fall Creek	115.0*	0.0	0.0	- -
Fern Ridge	94.2*	0.8	0.1	14.5
Foster	30.0*	0.5	1.0	- -
Green Peter	270.0*	1.3	5.4	- -
Hills Creek	200.0*	0.0	0.4	183.2
Lookout Point	337.2*	0.0	1.0	75.2
Timothy Lake	61.7	61.9	53.1	46.4

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
2080	Clackamas at Big Bottom	c			
2100	Clackamas at Estacada	c			
2095	Clackamas above Three Lynx	c			
1590	McKenzie at McKenzie Bridge	c			
1625	McKenzie near Vida	c			
2090	Oak Grove Fork above Power Intake	c			
1545	Row near Dorena	c			
1830	Santiam, North at Mehama	c			
1875	Santiam, South at Waterloo	c			
1840	Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	c			
1910	Willamette at Salem	c			
	NOTE: FORECASTS BEGIN ON FEB. 1, 1969				

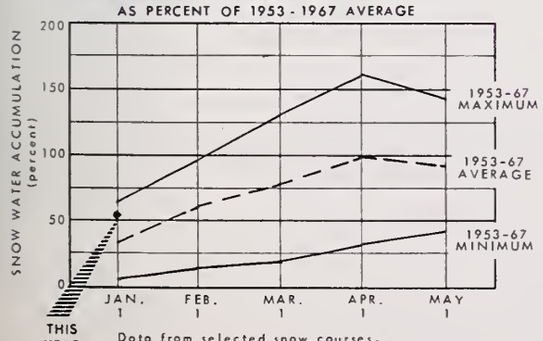
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 8

AS PERCENT OF 1953 - 1967 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) 1953-1967 AVERAGE
Cascade Summit	4880	12/30	59	13.5	8.7	10.3
Champion	4500	1/2	56	17.1	12.8	7.7 *h*
Clackamas Lake	3400	*c*				
Clear Lake	3500	12/30	41	8.4	2.0	2.6 *h*
Clear Lake (Experimental)	3500	12/30	52	9.8	3.8	4.9 *h*
Dead Horse Grade	3800	12/26	25	4.9	6.2	6.5 *h*
Detroit Town	1610	1/2	5	1.8	0.0	0.6
Detroit Dam	1580	1/2	2	1.3	0.0	0.3
Golden Curry Creek	3136	1/2	10	3.6	2.5	1.4 *h*
Hogg Pass	4755	1/2	71	20.5	11.3	13.9
Layng Creek	1200	1/2	0	0.0	0.0	0.1 *h*
Lost Creek Ranch	1956	12/26	10	2.7	1.9	1.3 *h*
Lund Park	1740	1/2	0	0.0	0.0	0.0 *h*
Marion Forks	2730	1/2	33	9.0	5.4	4.0 *h*
Marys Peak	3620	*c*				
McCredie Springs	2120	12/30	7	2.6	T	0.1
McKenzie	4800	12/26	58	15.1	11.4	17.9 *h*
McKenzie Bridge	1372	12/26	6	1.5	0.0	0.5 *h*
Meridian Dam	750	12/30	T	T	0.0	0.0
Mill City	826	1/2	T	T	0.0	0.2
Oakridge	1310	12/30	T	T	0.0	T *h*
Peavine Ridge	3500	*c*				
Phlox Point	5400	1/2	123	38.4	14.9	20.8
Railroad Overpass	2750	12/30	17	4.2	T	0.5 *m*
Salt Creek Falls	4000	12/30	38	8.3	6.5	4.6
Santiam Junction	3990	1/2	53	15.0	9.5	7.7 *h*
Still Creek	3670	1/3	65	19.0	5.8	7.1
Vida	800	12/26	0	0.0	0.0	- -
Waldo Lake	5500	*c*				
Weaver Creek	2440	1/2	0	0.0	T	0.2 *m*
White Branch Slide	2800	12/26	20	3.4	4.6	2.2 *h*
Whitewater Bridge	2175	1/2	22	5.4	2.3	1.5 *h*
Willamette Pass	5600	*c*				

"The Conservation of Water begins with the Snow Survey"

Area 9

WATER SUPPLY OUTLOOK
ROGUE, UMPQUA, WATERSHEDS
OREGON

as of

JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, orchardists and other water users can expect from fair to near average water supplies in 1969.

SNOW COVER

Winter storms have deposited generous amounts of snow on mountain watersheds. The January 1 snowpack was 160 percent average.

SOIL MOISTURE

Soil moisture is about average from near normal rainfall. According to the U. S. Weather Bureau, precipitation for the period November through December was 105 percent of average.

RESERVOIR STORAGE

Reservoir use last summer was heavy and carryover storage is low. Combined storage in Fish Lake and Fourmile Lake was 4,000 acre feet compared to the average of 14,000 acre feet. Emigrant Gap was holding 18,700 acre feet on January 1 compared to the average of 19,700 acre feet. Howard Prairie and Hyatt Prairie Reservoirs contained 18,900 acre feet and 7,200 acre feet respectively compared to averages of 32,800 acre feet and 9,200 acre feet.

STREAMFLOW

Flow* of the Rogue at Raygold for the period October through December was only 68 percent of average. This indicates that streams in the area still have not recovered from low 1968 summer flows.

Above average amounts of snow are needed during the next several months to assure all water users average supplies next summer.

*Provisional data furnished by the U. S. Geological Survey, Portland, Ore.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Althouse Creek Applegate River, Big Applegate River, Little Ashland Creek Butte Creek, Big Butte Creek, Little Cow Creek Deer Creek Elk Creek Emigrant Creek (abv. Res.) Evans Creek Gold Hill Irrigation Dist. Grants Pass Irrig. Dist. Grave Creek Illinois River, East Fork Illinois River, West Fork Jump-off-Joe Creek Neil Creek Red Blanket Creek Rogue River Sucker Creek Table Rock Irrig. Dist. Thompson Creek Wagner Creek Williams Creek	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Emigrant Gap	39.0	18.7	14.8	19.7*
Fish Lake	7.8	2.8	3.3	5.2
Fourmile Lake	16.1	1.2	2.7	8.8
Howard Prairie	60.0	18.9	40.8	32.8
Hyatt Prairie	16.1	7.2	8.7	9.2

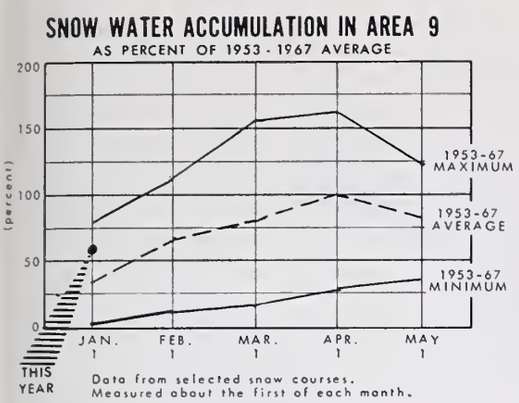
*Average for years of record after reconstruction.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
3620	Applegate near Copper	c			
3145	Clearwater above Trap Creek *d*	c			
5045	Fourmile Lake net Inflow	c			
5140	Hyatt Reservoir net Inflow *d*	c			
3771	Illinois River near Kerby	c			
3425	Little Butte, N. Fk. at Fish Lake nr. Lake Cr. *d*	c			
3415	Little Butte, S. Fork near Lake Creek	c			
	Note: Minimum flow will drop to 100 c.f.s. by c.				
3280	Rogue above Prospect	c			
3320	Rogue, South Fork near Prospect *d*	c			
3350	Rogue below South Fork	c			
3590	Rogue at Raygold near Central Point	c			
3615	Rogue at Grants Pass	c			
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls *d*	c			
	NOTE: FORECASTS BEGIN ON FEB. 1, 1969				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

ROGUE, UMPQUA WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Precipitation Gage
- Radio Telemetry

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1953-1967 AVERAGE
Althouse	4530	c				
Annie Spring	6013	1/2	81	22.4	12.7	14.9
Beaver Dam Creek	5100	12/31	44	11.9	7.6	4.0 m
Big Red Mountain	6500	c				
Billie Creek Divide	5300	12/24	47	12.0	8.0	7.3 h
Caliban	6500	c				
Champion	4500	1/2	56	17.1	12.8	7.7 h
Cold Springs Camp	6100	c				
Deadwood Junction	4600	12/31	36	9.2	5.8	3.3 h
Diamond Crater Summit	5800	12/26	52	12.8	8.3	14.0 h
Diamond Lake	5315	12/26	33	7.6	7.2	8.2
Fish Lake	4865	12/30	41	10.6	- -	5.3 m
Fourmile Lake	6000	c				
Grayback Peak	6000	c				
Howard Prairie	4500	12/31	34	8.5	5.9	3.2 h
Hyatt Prairie Reservoir	4900	12/31	33	8.3	5.6	3.1 h
King Mountain #1	4500	12/24	29	7.3	11.5	- -
King Mountain #2	4000	12/24	25	4.3	9.5	- -
King Mountain #3	3648	12/24	14	3.8	3.5	- -
King Mountain #4	3049	12/24	T	T	0.0	- -
King Mountain #5	2380	12/24	T	T	0.0	- -
King Mountain #6	1820	12/24	0	0.0	T	- -
Little Red Mountain	6500	c				
Mt. Ashland Switchback	6400	c				
North Umpqua	4215	1/3	28	7.6	4.9	6.1 h
Page Mountain	4045	c				
Park Headquarters	6450	12/31	101	29.3	13.6	21.6
Red Butte #1	4560	12/23	33	7.8	14.6	4.3 h
Red Butte #2	4000	12/23	18	3.3	12.8	0.6 h
Red Butte #3	3500	12/23	13	1.8	4.9	- -
Red Butte #4	3000	12/23	5	1.3	4.2	- -
Red Butte #5	2500	12/23	3	0.9	3.3	2.2 m
Red Butte #6	2000	12/23	T	T	2.3	- -
Seven Lakes #1	6800	c				
Seven Lakes #2	6200	c				
Silver Burn	3720	12/31	42	10.5	7.7	4.4
Siskiyou Summit	4630	12/30	37	8.8	7.2	2.4 h
Ski Bowl Road	6000	c				
South Fork Canal	3500	12/31	19	3.9	3.2	1.3
Trap Creek	3800	1/3	24	6.0	5.1	4.1 h
Whaleback	5140	c				
Windigo Pass	5800	c				

"The Conservation of Water begins with the Snow Survey"

Area 10

WATER SUPPLY OUTLOOK
KLAMATH WATERSHEDS
OREGON

as of

JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Most Klamath County ranchers, farmers and other water users can expect near average water supplies in 1969.

SNOW COVER

Winter storms have deposited generous amounts of snow on mountain watersheds. The January 1 snowpack was 160 percent of average.

SOIL MOISTURE

Soil moisture is above average from near normal rainfall. According to the U. S. Weather Bureau, precipitation for November and December was 111 percent of average.

RESERVOIR STORAGE

Carryover storage is below average, but it is still enough to supply water needs next summer. Upper Klamath Lake contained 331,100 acre feet on January 1 compared to an average of 351,300 acre feet. Gerber was holding 20,300 acre feet. This is 56 percent of average. Clear Lake was storing 141,200 acre feet compared to an average of 191,700 acre feet.

STREAMFLOW

Klamath Lake net inflow* for the period October through December was only 69 percent of average. This indicates that streams in the area still have not recovered from low 1968 flows.

Above average amounts of snow are needed during the next several months to assure average streamflow throughout the county next summer.

*Provisional data provided by Pacific Power and Light Co., Portland, Oregon.

Report prepared by
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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Ft. Klamath Valley Lost River (Clear Lake) Lost River (Gerber) Lost River (Willow Res.) Sprague River Upper Klamath Lake Williamson River	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Clear Lake	440.2	141.2	181.1	191.7
Gerber	94.0	20.3	44.7	36.4
Upper Klamath Lake	584.0	331.1	288.0	351.3

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

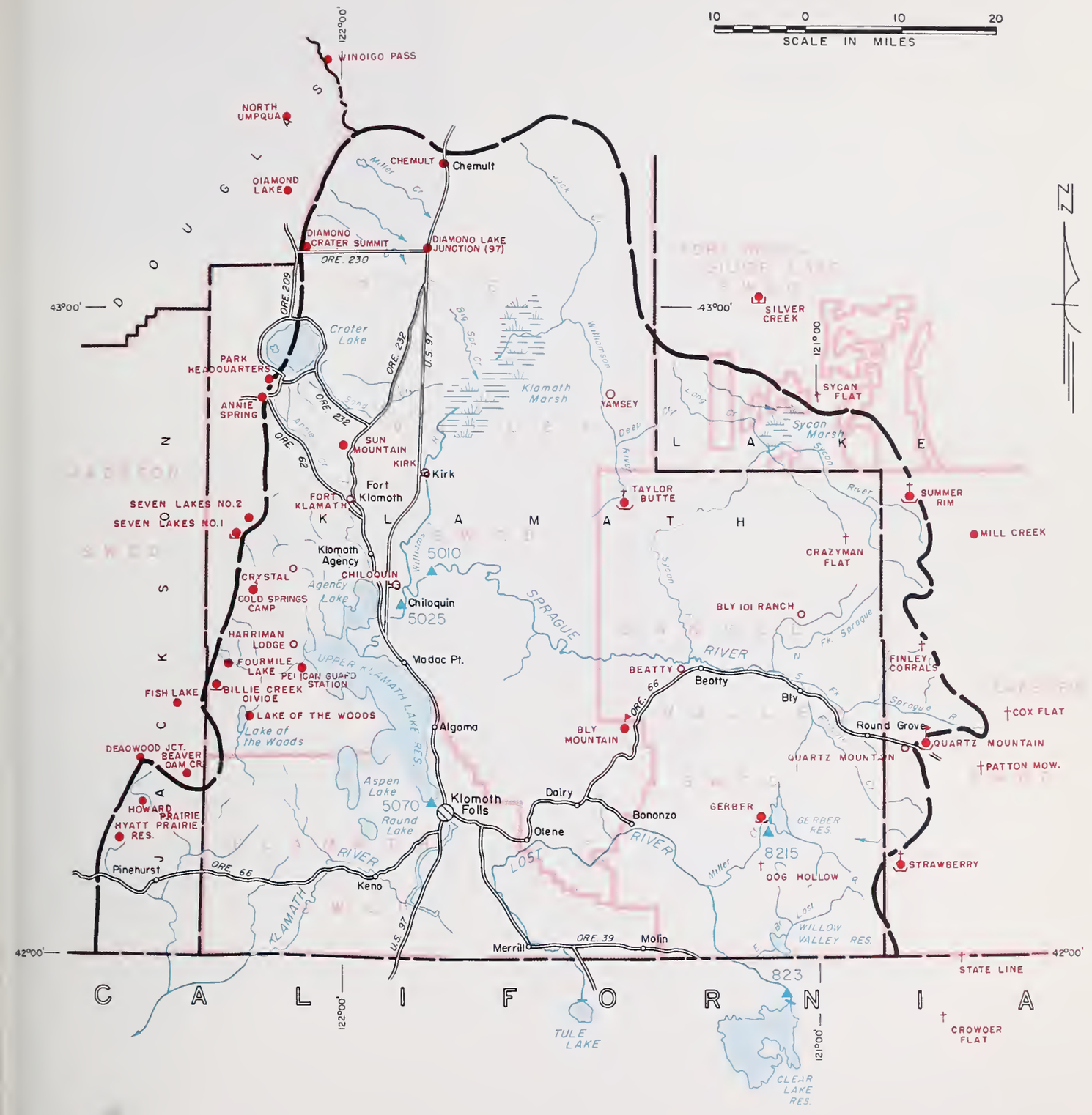
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
923	Clear Lake Reservoir Inflow [k]	c			
8215	Gerber Reservoir Inflow [k]	c			
5010	Sprague near Chiloquin	c			
5070	Upper Klamath Lake net Inflow [k]	c			
5025	Williamson below Sprague River				
	NOTE: FORECASTS BEGIN ON FEB. 1, 1969				

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Bly Mountain	5090	42	14.0	12-26-68	9.1	8.4	9.5

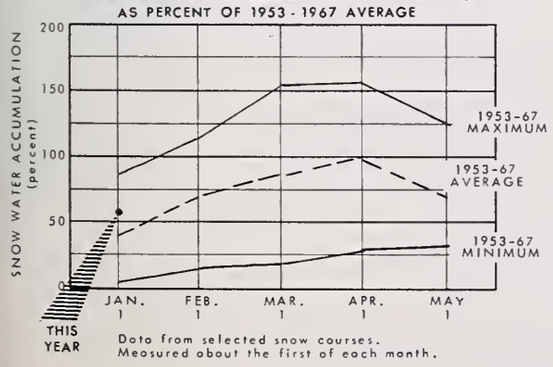
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 10

AS PERCENT OF 1953 - 1967 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- PP&L Snow Station
- Soil Moisture Station
- Precipitation Gage
- Radio Telemetry

OR-10c

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches): LAST YEAR	PAST RECORD: WATER CONTENT (Inches): 1953-1967 AVERAGE
Annie Spring	6018	1/2	81	22.4	12.7	14.9
Beatty (PP&L)	4300	12/31	5	1.5	2.2	0.2 *m*
Billie Creek Divide	5300	12/24	47	12.0	8.0	7.3 *h*
Bly Mountain	5090	12/20	13	2.6	4.4	2.1 *m*
Bly 101 Ranch (PP&L)	4800	*b*				
Chemult	4760	1/2	24	4.9	4.3	4.1
Chiloquin (PP&L)	4187	*b*				
Cold Springs Camp	6100	*c*				
Crazyman Flat	6100	*c*				
Crowder Flat (Calif.)	5200					
Crystal (PP&L)	4200	12/28	37	7.9	4.0	3.5
Diamond-Crater Summit	5800	12/26	52	12.8	8.3	14.0 *h*
Diamond Lake Junction (97)	4600	12/26	21	3.5	3.5	2.0 *h*
Dog Hollow	4900	*c*				
Finley Corrals	6000					
Fort Klamath (PP&L)	4150	12/28	19	4.1	3.2	1.3
Fourmile Lake	6000	*c*				
Gerber	4850	12/31	11	2.8	0.4	1.1 *h*
Harriman (PP&L)	4200	1/4	18	1.8	1.3	1.3
Hyatt Prairie Reservoir	4900	12/31	33	8.3	5.6	3.1 *h*
Kirk (PP&L)	4533	12/30	29	4.5	5.2	2.8 *m*
Lake of the Woods	4960	12/29	32	7.5	- -	5.1 *h*
Park Headquarters	6450	12/31	101	29.3	13.6	21.6
Pelican Guard Station	4150	12/24	19	3.8	3.5	1.4 *h*
Quartz Mountain	5320	12/30	19	4.0	3.7	2.4
Quartz Mountain (PP&L)	5504	12/30	22	4.9	4.2	2.4 *m*
Seven Lakes #1	6800	*c*				
Seven Lakes #2	6200	*c*				
State Line (Calif.)	5750	*c*				
Strawberry	5760	*c*				
Summer Rim	7200	*c*				
Sun Mountain	5350	12/27	52	12.1	7.4	8.5
Sycan Flat	5500	*c*				
Taylor Butte	5100	12/23	17	2.7	3.0	2.0 *h*
Yamsey (PP&L)	4600	*b*				

"The Conservation of Water begins with the Snow Survey"

Area 11

WATER SUPPLY OUTLOOK
LAKE COUNTY, GOOSE LAKE WATERSHEDS
OREGON

as of
JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, ranchers and other water users in Lake County can expect near average water supplies in 1969.

SNOW COVER

Winter storms have deposited generous amounts of snow in the mountains. The snowpack was 155 percent of average on January first.

SOIL MOISTURE.

Soils have been well wetted from good fall rains. Profiles are 70 percent of capacity, about 15 percent better than last year.

PRECIPITATION

According to the U. S. Weather Bureau, precipitation during November and December was 100 percent of average.

STREAMFLOW

Above average snowfall will be needed the next few months to assure all water users in Lake County good water supplies next summer.

Report prepared by
TOM GEORGE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Chewaucan Crooked Creek Deep Creek Dry Creek East Side Goose Lake Guano Lake Honey Creek Lakeview Water Users Assn. Rock Creek (Hart Mtn.) Silver-Buck Creeks Summer Lake Thomas Creek Twentymile Creek Warner Lakes	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Cottonwood	8.7	*b*	0.8	2.1*
Drews	63.0	*b*	35.0	31.0
Thompson Valley	19.5	*b*	17.0*g*	11.1

*Average for years of record after reconstruction

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3840	Chewaucan near Paisley	*c*			
3715	Deep above Adel	*c*			
3385	Drews Reservoir net Inflow	*c*			
3785	Honey Creek near Plush	*c*			
3900	Silver Creek near Silver Lake	*c*			
3660	Twentymile near Adel	*c*			

SOIL MOISTURE

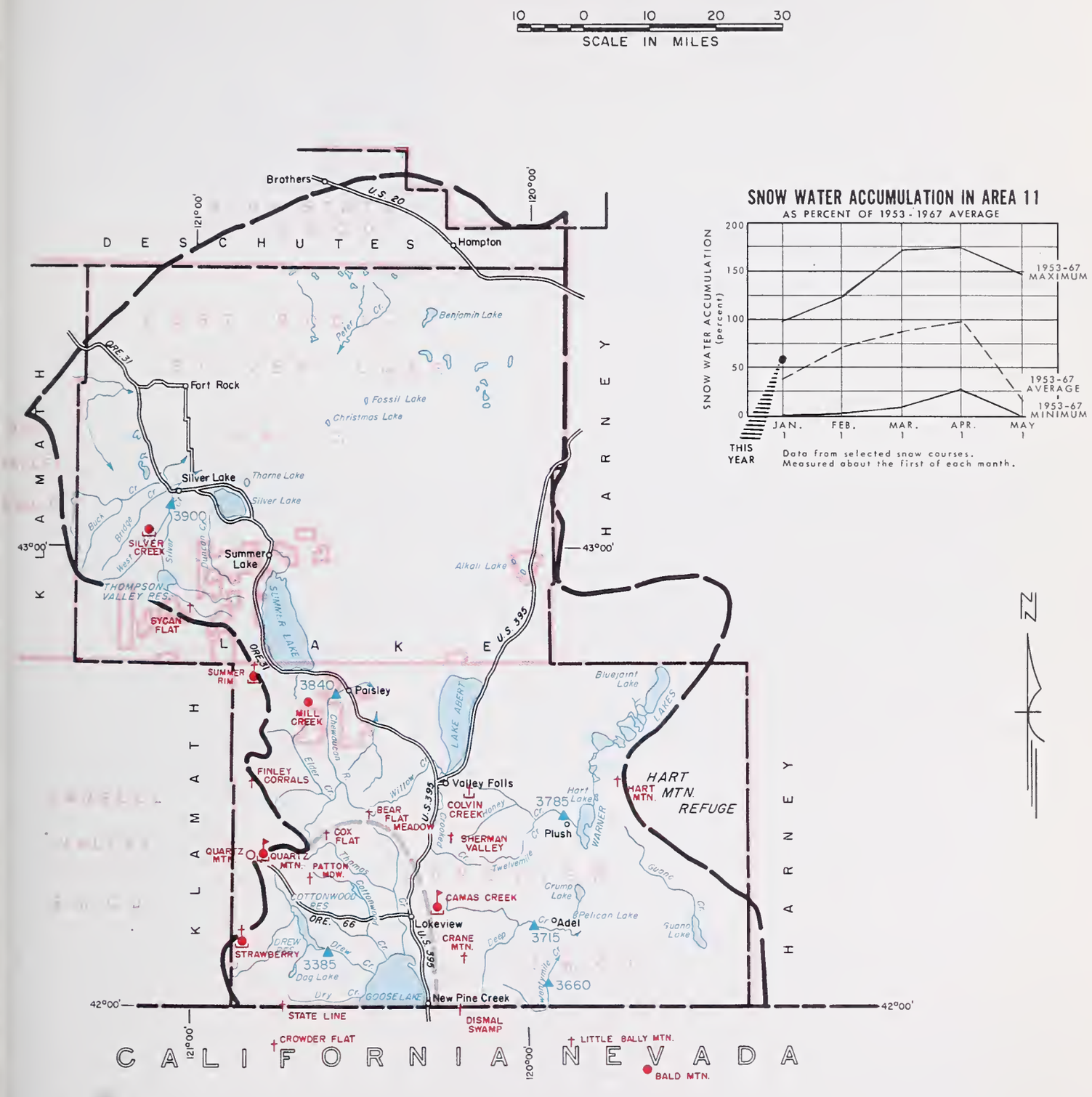
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Camas Creek	5720	42	14.5	12-31-68	12.2	9.7	11.8
Quartz Mountain	5320	48	15.3	12-30-68	7.4	6.4	8.2

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1953-1967 AVERAGE
Adin Mountain (Calif.)	6350	*c*				
Bald Mountain (Nev.)	6720	*c*				
Bear Flat Meadow	5900	*c*				
Camas Creek	5720	12/30	23	5.0	3.9	3.4
Cedar Pass (Calif.)	7100	*c*				
Colvin Creek	6550	*c*				
Cox Flat	5750	*c*				
Crane Mountain	6020	*c*				
Crowder Flat (Calif.)	5200	*c*				
Dismal Swamp (Calif.)	7000	*c*				
Finley Corrals	6000	*c*				
Hart Mountain	6350	*c*				
Little Bally Mountain (Nev.)	6600	*c*				
Mill Creek	6200	*c*				
Patton Meadows	6800	*c*				
Quartz Mountain (PP&L)	5504	12/30	22	4.9	4.2	2.4 *m*
Quartz Mountain	5320	12/30	19	4.0	3.7	2.4
Sherman Valley	6600	*c*				
Silver Creek	4900	12/30	10	1.8	1.8	1.4 *h*
State Line (Calif.)	5750	*c*				
Strawberry	5760	*c*				
Summer Rim	7200	*c*				
Sycan Flat	5500	*c*				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 11

AS PERCENT OF 1953 - 1967 AVERAGE

Data from selected snow courses.
Measured about the first of each month.

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aeriol Snow Depth Gage
- COPCO Snow Station
- Soil Moisture Station
- Precipitation Gage

"The Conservation of Water begins with the Snow Survey"

Area 12

WATER SUPPLY OUTLOOK
HARNEY BASIN WATERSHEDS
OREGON

as of
JANUARY 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, ranchers and other water users in the Harney Basin can expect near average water supplies in 1969.

SNOW COVER

Winter storms have deposited generous amounts of snow in the mountains. The snowpack was 150 percent of average on January first.

SOIL MOISTURE

Soils have been well wetted from rainfall. Profiles are 78 percent of capacity, compared to 52 percent last year.

PRECIPITATION

According to the U. S. Weather Bureau, precipitation during November and December was 160 percent of average.

STREAMFLOW

Above average snowfall will be needed the next few months to assure all water users in Harney County good water supplies next summer.

Report prepared by
TOM GEORGE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Catlow Valley Cow Creek Donner und Blitzen River Mill-Coffeepot Creeks Rattlesnake Creek Silver Creek Silvies River Soldier-Prather Creek Trout Creek Whitehorse Creek	Forecasts begin in the February 1 report which will be issued about February 10, 1969.	

RESERVOIR STORAGE (1,000 Ac. Ft.) January 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of January 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3960	Donner und Blitzen near Frenchglen	*c*			
4030	Silver near Riley	*c*			
3935	Silvies River near Burns	*c*			
4065	Trout Creek near Denio	*c*			
	NOTE: FORECASTS BEGIN ON FEB. 1, 1969				

SOIL MOISTURE

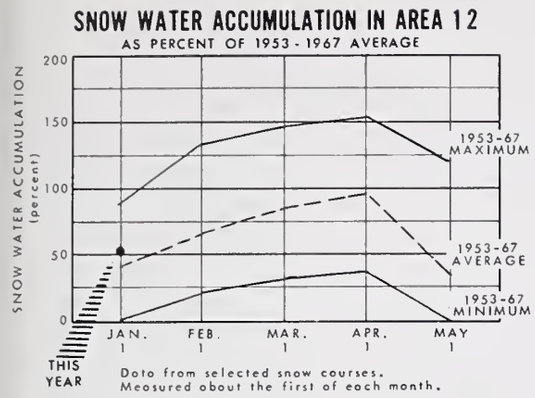
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Blue Mountain Springs	5900	42	16.9	12-30-68	9.9	7.2	7.8
Fish Creek	7900	48	15.0				
Folly Farm	4450	30	12.5				
Silvies	6900	48	16.4				
Snow Mountain	6300	48	16.7				
Starr Ridge	5150	36	10.6	1-2-69	10.6	7.5	10.0
Stinking Water	4800	48	21.9	12-31-68	21.5	- -	- -
Willow-Bald	5000	24	6.6	12-30-68	6.0	3.2	6.4

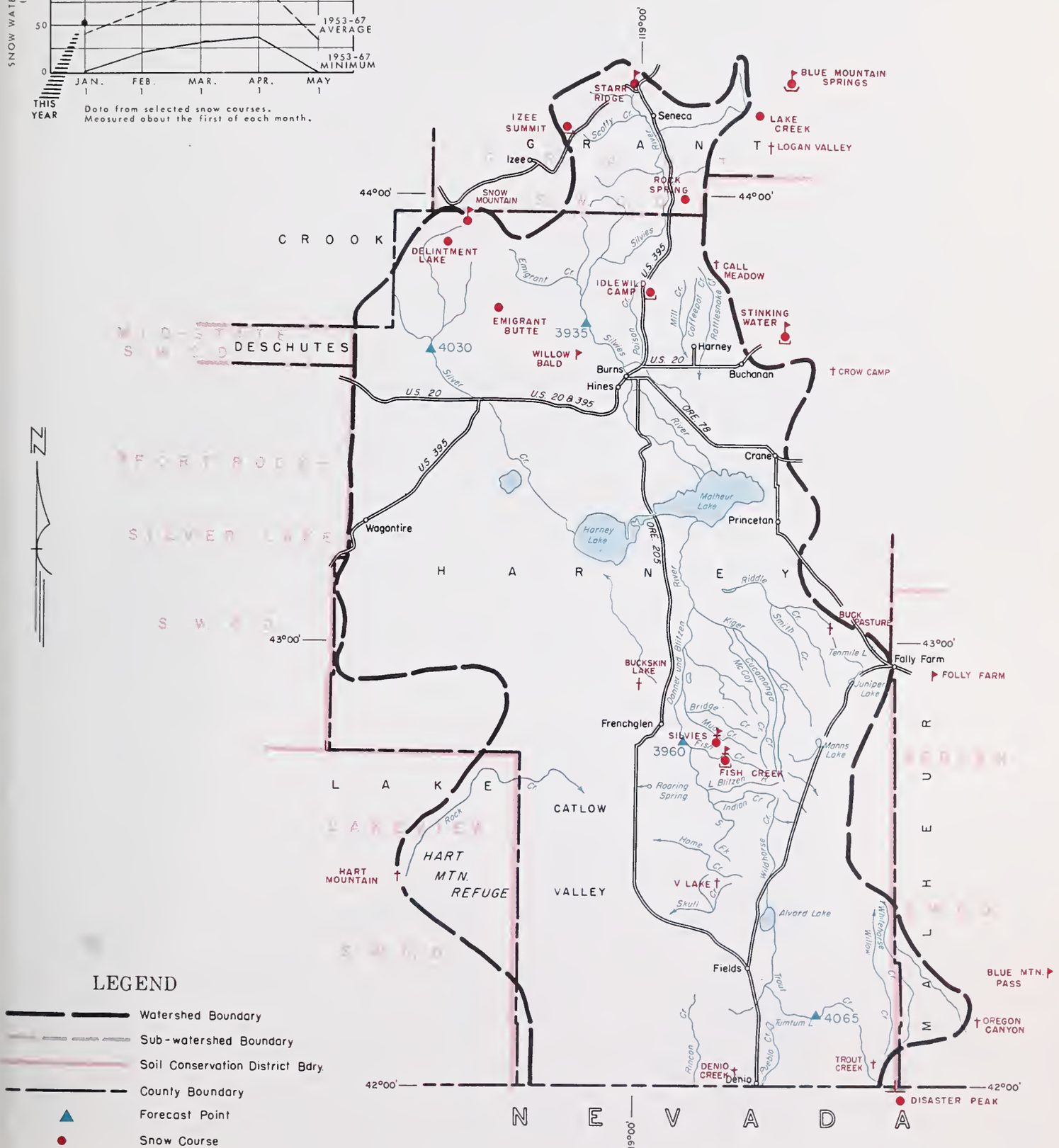
SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1953-1967 AVERAGE
Blue Mountain Springs	5900	12,30	35	7.2	3.5	5.6 *h*
Buck Pasture	5700	*c*				
Buckskin Lake	5200	*c*				
Call Meadows	5340	*c*				
Crow Camp	5500	*c*				
Delintment Lake	5600	*c*				
Denio Creek	6000	*c*				
Disaster Peak (Nev.)	6500	*c*				
Emigrant Butte	5000	*c*				
Fish Creek	7900	*c*				
Hart Mountain	6350	*c*				
Idlewild Camp	5200	12/31	14	1.8	0.9	1.4
Izee Summit	5293	1/2	20	4.1	1.6	2.5 *h*
Lake Creek	5120	12/30	24	5.0	2.4	3.7 *h*
Oregon Canyon	6950	*c*				
Rock Spring	5100	12/31	16	2.3	0.7	1.5
Silvies	6900	*c*				
Snow Mountain	6300	*c*				
Starr Ridge	5150	1/2	15	3.0	0.8	2.0 *h*
Stinking Water	4800	12/31	15	2.5	1.7	1.3 *h*
Trout Creek	7800	*c*				
"V" Lake	6600	*c*				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HARNEY BASIN WATERSHEDS





LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- ● Snow Course
- † Aerial Snow Depth Gage
- ⚑ Soil Moisture Station
- ⌴ Precipitation Gage

"The Conservation of Water begins with the Snow Survey"

OWYHEE, MALHEUR WATERSHEDS (1)

Owyhee River

NUMBER	NAME		SEC	TWP	RGE	ELEV
[illegible]	Antelope Ridge	(Ida)	20	6S	1E	5900
[illegible]	Battle Creek	(Ida)	10	11S	1E	5700
[illegible]	Bear Creek	(Nev)	31	46N	59E	7800
[illegible]	Big Bend	(Nev)	30	45N	56E	6700
[illegible]	Blue Mtn Pass		4	38S	42E	5290
[illegible]	Buckskin, Lower	(Nev)	25	45N	39E	6700
[illegible]	Buckskin, Upper	(Nev)	11	45N	39E	7200
[illegible]	Bull Basin	(Ida)	29	12S	5W	5600
[illegible]	Columbia Basin	(Nev)	31	44N	53E	6650
[illegible]	Disaster Peak	(Nev)	5	47N	34E	6500
[illegible]	Fawn Creek	(Nev)	2	45N	52E	7000
[illegible]	Fish Creek		4	35S	33E	7900
[illegible]	[illegible] Farm Summit		8	30S	38E	4450
[illegible]	[illegible] Creek	(Nev)	33	46N	58E	6800
[illegible]	[illegible] Canyon	(Nev)	31	43N	54E	6700
[illegible]	[illegible] Creek	(Nev)	31	45N	56E	6600
[illegible]	Granite Peak	(Nev)	22	44N	39E	7800
[illegible]	[illegible] Pasture	(Ida)	31	8S	2W	5800
[illegible]	Jack Creek, Lower	(Nev)	16	42N	53E	6800
[illegible]	Jack Creek, Upper	(Nev)	9	42N	53E	7250
[illegible]	Jack Peak	(Nev)	28	42N	53E	5420
[illegible]	Jordan Valley		[illegible]	30S	46E	4590
[illegible]	[illegible] Draw	(Nev)	20	45N	53E	6700
[illegible]	Lookout Butte		2	40S	47E	5650
[illegible]	[illegible] Canyon		27	40S	44E	6440
[illegible]	Martin Creek	(Nev)	18	44N	40E	6700
[illegible]	Merritt Mountain	(Nev)	10	46N	54E	7000
16H3AP	Midas	(Nev)	18	39N	46E	7200
16G7MP	Mud Flat	(Ida)	34	9S	2W	5500
17G5a	Oregon Canyon		9	40S	40E	6950
17H6a	Quinn Ridge	(Nev)	9	47N	41E	6300
16G11ap	Red Canyon	(Ida)	32	11S	4W	6500
15H6MP	Rodeo Flat	(Nev)	36	43N	53E	6800
15H5A	76 Creek	(Nev)	6	44N	58E	7100
16F3AP*	Silver City	(Ida)	6	5S	3W	6400
18G1MPA	Silvies		35	32S	32¼E	6900
16G1P	South Mountain No. 2	(Ida)	10	8S	5W	6340
15H19a	Stag Mountain	(Nev)	32	41N	58E	7800
16F6a	Succor Creek	(Ida)	25	3S	5W	6100
15H9MP	Taylor Canyon	(Nev)	35	39N	53E	6200
16H7a	Toe Jam	(Nev)	29	40N	50E	7700
15H8	Tremewan Ranch	(Nev)	9	39N	55E	5700
16G4MA	Triangle	(Ida)	25	7S	3W	5150
18G5a	Trout Creek		10	41S	38E	7800
18G7a	"V" Lake		31	35¼S	32¼E	6600
16G12a	Vaught Ranch	(Ida)	10	11S	1W	5950
16G13a	War Eagle	(Ida)	20	5S	3W	7700

Malheur River

NUMBER	NAME	SEC	TWP	RGE	ELEV
18E14	Barney Creek	16	14S	36E	5950
18E16MP	Blue Mountain Springs	21	15S	35E	5900
18F6a	Buck Pasture	21	29S	35E	5700
18E21a	Bully Creek	10	17S	37E	5300
18F7a	Call Meadows	29	20S	33E	5340
17F2a	Cottonwood-Indian	10	19S	39E	4320
18E19M	Crane Prairie	24	16S	34E	5375
18F8a	Crow Camp	26	23S	34E	5500
18E20	Eldorado Pass	20	14S	38E	4600
18E26a	Flag Prairie	32	16S	36E	4750
18E18	Lake Creek	10	16S	33½E	5120
18E22a	Logan Valley	13	16S	33½E	5100
18F1	Rock Spring	23	18S	32E	5100
18E32p*	S. Fk. Willow Cr.	2	16S	37E	5500
18F4MP	Stinking Water	33	21S	34E	4800

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS (2)

Burnt River

NUMBER	NAME	SEC	TWP	RGE	ELEV
18E14	Barney Creek	16	14S	36E	5950
18E13M	Blue Mountain Summit	6	12S	36E	5098
17E1MP	Dooley Mountain	32	11S	40E	5430
18E20	Eldorado Pass	20	14S	38E	4600
18E8	Gold Center	21	9S	36E	5340
18E9P	Tipton	34	10S	35½E	5100

Powder River

NUMBER	NAME	SEC	TWP	RGE	ELEV
18E1P	Anthony Lake	18	7S	37E	7125
18E33	Anthony Ski Hill	12	7S	36E	7800
18E5	Bourne	33	8S	37E	5800
17E1MP	Dooley Mountain	32	11S	40E	5430
18E3	Eilertson Meadows	18	8S	38E	5400
18E8	Gold Center	21	9S	36E	5340
18E6A	Goodrich Lake	4	9S	38E	6775
18E29	Intake House	5	8S	38E	4930
17D12m	Ladd Summit	5	5S	39E	3730
18E23	Little Alps	10	7S	37E	6200
18E30	Little Antone	1	7S	37E	5000
18E28	Power Plant	33	7S	38E	3990
17D7P	Taylor Green	3	6S	42E	5740

Pine Creek

NUMBER	NAME	SEC	TWP	RGE	ELEV
17D8	Schneider Meadows	35	6S	45E	5400

Grande Ronde River

NUMBER	NAME	SEC	TWP	RGE	ELEV
17D1	Aneroid Lake No. 1	16	4S	45E	7480
17D2P	Aneroid Lake No. 2	16	4S	45E	7300
18E1P	Anthony Lake	18	7S	37E	7125
17D10a	Bald Mountain	14 & 15	4S	41E	6700
18D9	Beaver Reservoir	8	5S	37E	5340
18D8P	County Line	28	4S	34E	4800
18D6P	Lucky Strike	28	3S	32E	5050
18D5	Meacham	24 & 25	1S	35E	4300
17D13a	Mirror Lake	34	4S	44E	8200
17D6M	Moss Spring	28	3S	41E	5850
18D7	Schoolmarm	28	4S	34E	4775
17D11a	Standley	28	2S	42E	7400
17D7P	Taylor Green	3	6S	42E	5740
18D3M	Tollgate	32	4N	38E	5070
17D16a	TV Ridge No. 2	12	2S	43E	7000

Imnaha River

NUMBER	NAME	SEC	TWP	RGE	ELEV
17D1	Aneroid Lake No. 1	16	4S	45E	7480
17D2P	Aneroid Lake No. 2	16	4S	45E	7300
17D14a	Big Sheep	33	4S	46E	6200

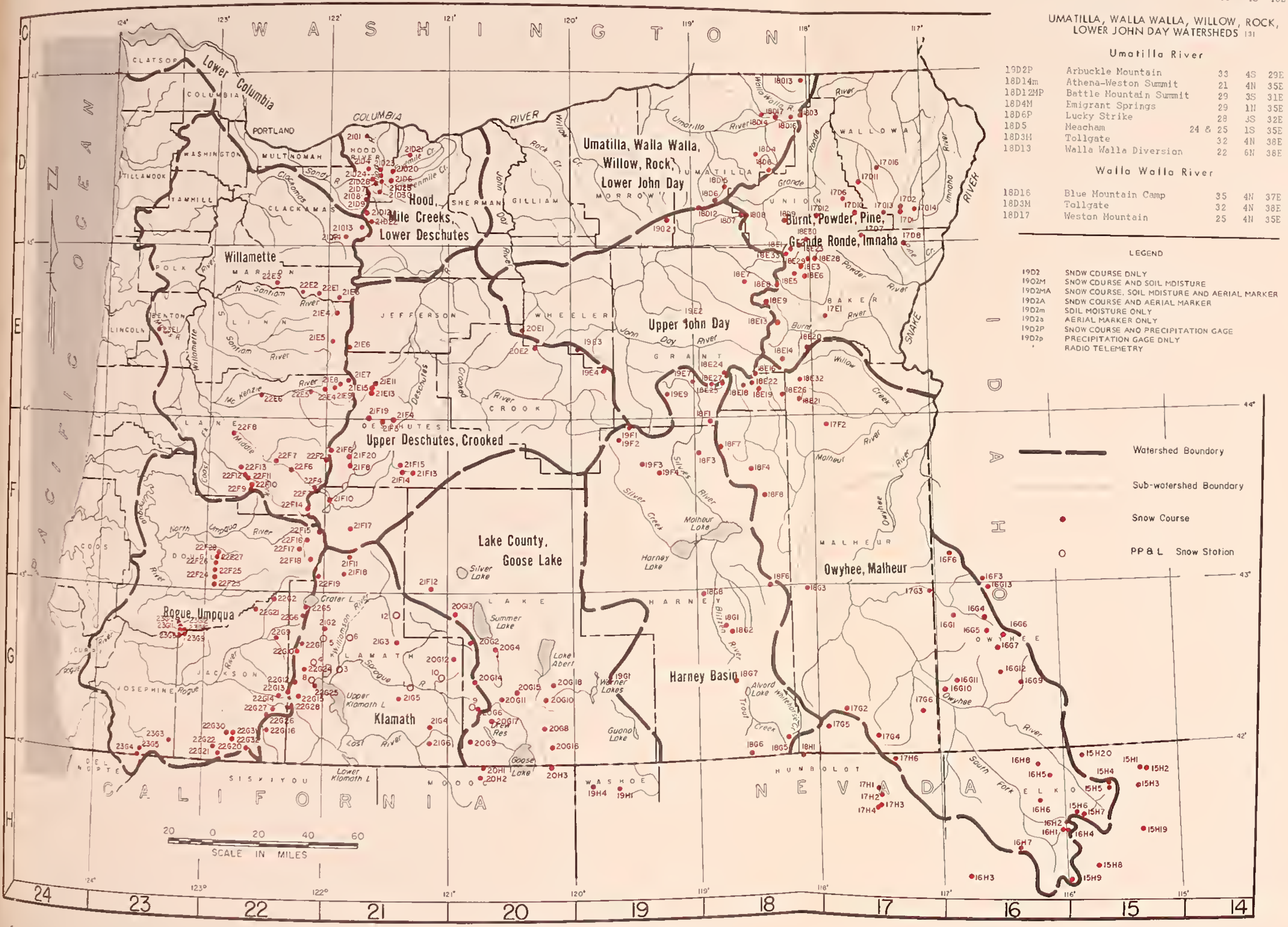
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS (3)

Umatilla River

NUMBER	NAME	SEC	TWP	RGE	ELEV
19D2P	Arbuckle Mountain	33	4S	29E	5400
18D14m	Athena-Weston Summit	21	4N	35E	1700
18D12MP	Battle Mountain Summit	29	3S	31E	4340
18D4M	Emigrant Springs	29	1N	35E	3925
18D6P	Lucky Strike	28	3S	32E	5050
18D5	Meacham	24 & 25	1S	35E	4300
18D3M	Tollgate	32	4N	38E	5070
18D13	Walla Walla Diversion	22	6N	38E	2400

Walla Walla River

NUMBER	NAME	SEC	TWP	RGE	ELEV
18D16	Blue Mountain Camp	35	4N	37E	4300
18D3M	Tollgate	32	4N	38E	5070
18D17	Weston Mountain	25	4N	35E	2700



Willow Creek

NUMBER	NAME	SEC	TWP	RGE	ELEV
19D2P	Arbuckle Mountain	33	4S	29E	5400
18E1P	Anthony Lake	18	7S	37E	7125

UPPER JOHN DAY WATERSHEDS (4)

Upper John Day River

NUMBER	NAME	SEC	TWP	RGE	ELEV
19D2P	Arbuckle Mountain	33	4S	29E	5400
18D12MP	Battle Mountain Summit	29	3S	31E	4340
19E2M	Beech Creek Summit	4	12S	30E	4800
18E16MP	Blue Mountain Springs	21	15S	35E	5900
18E13M	Blue Mountain Summit	6	12S	36E	5098
19E3MP	Derr	14	13S	23E	5670
18E27a	East Fork Canyon	15	15S	32E	5700
18E8	Gold Center	21	9S	36E	5340
18E24a	Indian Cr. Butte	5	15S	33E	6550
19E9P	Izee Summit	28	16S	29E	5293
18D6P	Lucky Strike	28	3S	32E	5050
20E1MP	Marks Creek	25	12S	19E	4540
20E2	Ochoco Meadows	21	13S	20E	5200
18E7	Olive Lake	14	9S	33½E	6000
18D7	Schoolmarm	28	4S	34E	4775
19F1M	Snow Mountain	1	19S	26E	6300
19E7M	Starr Ridge	20	15S	31E	5150
18E9P	Tipton	34	10S	35½E	5100
18E25MP	Williams Ranch	20	15S	32E	4500

UPPER DESCHUTES, CROOKED WATERSHEDS (5)

Upper Deschutes River

NUMBER	NAME	SEC	TWP	RGE	ELEV
21E11	Black Pine Spring	14	16S	9E	4600
21F8	Caldwell Ranch	30	21S	8E	4400
22F3	Cascade Summit	7	23S	6E	4880
21F11	Chemult	21	27S	8E	4760
21F20P	Deer Creek	25	20S	7E	4554
21F14	Fire Road	36	21S	11E	5050
21E6	Hogg Pass	24	13S	7½E	4755
21F4	Hungry Flat	30	18S	11E	4400
21F6*	Irish-Taylor	25	20S	6E	5500
21F17	Mowich	29	25S	8E	4700
21F10	New Crescent Lake	11	24S	6E	4800
21F19P	New Dutchman Flat #2	21	18S	9E	6400
21F13P	Paulina Lake	34	21S	12E	6330
21F15	Paulina Prairie	28	21S	11E	4285
21F3	Tangent	28	18S	10E	5400
21E15	Three Creeks Butte	27	16S	9E	5200
21E13	Three Creeks Meadows	34	16S	9E	5650
22F2P	Waldo Lake	15	21S	6E	5500
22F14*	Willamette Pass	33	24S	5½E	5600
22F15	Windigo Pass	32	25S	6E	5800

Crooked River

NUMBER	NAME	SEC	TWP	RGE	ELEV
19E3MP	Derr	14	13S	23E	5670
20E1MP	Marks Creek	25	12S	19E	4540
20E2	Ochoco Meadows	21	13S	20E	5200
19F1M	Snow Mountain	1	19S	26E	6300
19E4	Tamarack	8	15S	25E	4800

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS (6)

Hood River

NUMBER	NAME	SEC	TWP	RGE	ELEV
21D6P	Brooks Meadows	2	2S	10E	4300
21D25M	Cooper Spur	6	2S	10E	3490
21D1	Greenpoint Reservoir	28	2N	9E	3400
21D20	Knebal Springs	31	1S	11E	3850
21D23	Parkdale	5	1S	10E	1770
21D8*	Phlox Point	7	3S	9E	5400
21D4	Red Hill	20	1S	9E	4400
21D9	Still Creek	25	3S	8½E	3670
21D28	Switchback	28	1S	9E	3255
21D7P	Tilly Jane	15	2S	9E	6000
21D21	Ulrich Ranch Junction	28	1S	11E	3350
21D30	Umbrella Falls	3	3S	9E	5400
21D24	Upper Valley	20	1S	10E	2530

Mile Creeks - Mosier Creek

NUMBER	NAME	SEC	TWP	RGE	ELEV
21D6P	Brooks Meadows	2	2S	10E	4300
21D20	Knebal Springs	31	1S	11E	3850
21D21	Ulrich Ranch Junction	28	1S	11E	3350

Lower Deschutes River

NUMBER	NAME	SEC	TWP	RGE	ELEV
21D12	Clear Lake	29	4S	9E	3500
21D22	Clear Lake Experimental	29	4S	9E	3500
21E6	Hogg Pass	24	13S	7½E	4755

LOWER COLUMBIA WATERSHEDS (7)

Sandy River

NUMBER	NAME	SEC	TWP	RGE	ELEV
21D8*	Phlox Point	7	3S	9E	5400
21D9	Still Creek	25	3S	8½E	3670

WILLAMETTE WATERSHEDS (8)

Clackamas River

NUMBER	NAME	SEC	TWP	RGE	ELEV
21D3	Clackamas Lake	35	5S	8½E	3400
21D12	Clear Lake	29	4S	9E	3500
21D14P*	Peavine Ridge	14 & 15	6S	7E	3500
21D8*	Phlox Point	7	3S	9E	5400
21D9	Still Creek	25	3S	8½E	3670

Santiam River

NUMBER	NAME	SEC	TWP	RGE	ELEV
22E1	Detroit (City)	1	10S	5E	1610
22E2	Detroit Dam	7	10S	5E	1580
21E6	Hogg Pass	24	13S	7½E	4755
21E4	Marion Forks	28	11S	7E	2730
22E3	Mill City	29	9S	3E	826
21E5	Santiam Junction	14	13S	7E	3990
21E3	Whitewater Bridge	28	10S	7E	2175

McKenzie River

NUMBER	NAME	SEC	TWP	RGE	ELEV
21E8	Dead Horse Grade	13	16S	7E	3800
22E4	Lost Creek Ranch	24	16S	6E	1956
21E7	McKenzie	35	15S	7½E	4800
22E5	McKenzie Bridge	13	16S	5E	1372
22E6	Vida	28	16S	2E	800
21E9	White Branch Slide	15	16S	7E	2800

Middle Fork Willamette River

NUMBER	NAME	SEC	TWP	RGE	ELEV
22F3	Cascade Summit	7	23S	6E	4880
22F6	McCredie Springs	36	21S	4E	2120
22F8	Meridian Dam	13	19S	1W	750
22F7	Oakridge	16	21S	3E	1310
22F5	Railroad Overpass	21	22S	5E	2750
22F4	Salt Creek Falls	32	22S	5½E	4000
22F2P	Waldo Lake	15	21S	6E	5500
22F14*	Willamette Pass	33	24S	5½E	5600

Coast Fork Willamette River

NUMBER	NAME	SEC	TWP	RGE	ELEV
22F9	Champion	12	23S	1E	4500
22F10	Golden Curry Creek	1	23S	1E	3136
22F13	Layng Creek R. S.	31	21S	1E	1200
22F12	Lund Park	22	22S	1E	1740
22F11	Weaver Creek	35	22S	1E	2440

Mary's River

NUMBER	NAME	SEC	TWP	RGE	ELEV
23E1	Mary's Peak	21	12S	7W	3620

ROGUE, UMPQUA WATERSHEDS (9)

Rogue River

NUMBER	NAME	SEC	TWP	RGE	ELEV
23G4P	Althouse	17	41S	7W	4530
22G6	Annie Spring	19	31S	6E	6018
22G28	Beaver Dam Creek	1	38S	4E	5100
22G21P	Big Red Mountain	31	40S	1W	6500
22G13P	Billie Creek Divide	30	36S	5E	5300
22G30	Caliban	16	40S	1E	6500
22G27	Deadwood Junction	8	38S	4E	4600
22F19	Diamond-Crater Summit	34	28S	6E	5800
22G14P	Fish Lake	3	37S	4E	4865
22G12	Fourmile Lake	9	36S	5E	6000
23G3	Grayback Peak	9	40S	5W	6000
22G26	Howard Prairie	32	38S	4E	4500
22G16	Hyatt Prairie Reservoir	15	39S	3E	4900
22G22	Little Red Mountain	25	40S	2W	6500
22G31	Mt. Ashland Switchback	15	40S	1E	6400
23G5	Page Mountain	8	41S	7W	4045
22G5	Park Headquarters	8	31S	6E	6450
22G10P	Seven Lakes No. 1	3	34S	5E	6800
22G11	Seven Lakes No. 2	26	33S	5E	6200
22G2	Silver Burn	30	30S	4E	3720
22G20	Siskiyou Summit	17	40S	2E	4630
22G32	Ski Bowl Road	22	40S	1E	6000
22G9	South Fork Canal	12	33S	3E	3500
22G1	Whaleback	3	31S	2E	5140

Umpqua River

NUMBER	NAME	SEC	TWP	RGE	ELEV
22F9	Champion	12	23S	1E	4500
22F18P	Diamond Lake	29	27S	6E	5315
23G8	King Mountain No. 1	5	33S	4W	4500
23G9	King Mountain No. 2	4	33S	4W	4000
23G10	King Mountain No. 3	33	32S	4W	3648
23G11	King Mountain No. 4	33	32S	4W	3049
23G12	King Mountain No. 5	29 & 28	32S	4W	2380
23G13	King Mountain No. 6	20	32S	4W	1820
22F16	North Umpqua	19	26S	6E	4215
22F23	Red Butte No. 1	36	27S	2W	4560
22F24	Red Butte No. 2	30	27S	1W	4000
22F25	Red Butte No. 3	30	27S	1W	3500
22F26	Red Butte No. 4	30	27S	1W	3000
22F27	Red Butte No. 5	20	27S	1W	2500
22F28	Red Butte No. 6	17	27S	1W	2000
22F17	Trap Creek	1	27S	4E	3800
22G1	Whaleback	3	31S	2E	5140
22F15	Windigo Pass	32	25S	6E	5800

KLAMATH WATERSHEDS (10)

Klamath River

NUMBER	NAME		SEC	TWP	RGE	ELEV
22G6	Annie Spring		19	31S	6E	6018
22G13P	Billie Creek Divide		30	36S	5E	5300
21G5M	Bly Mountain		15 & 22	37S	11E	5090
21F11	Chemult		21	27S	8E	4760
22G24*	Cold Springs Camp		12	35S	5E	6100
20G12a	Crazyman Flat		9	34S	15E	6100
20H2a	Crowder Flat	(Cal)	30	47N	11E	5200
22F19	Diamond-Crater Summit		34	28S	6E	5800
21F18	Diamond Lake Jct. (97)		1	29S	7E	4600
21G6a	Dog Hollow		1	40S	14E	4900
20G14a	Finley Corrals		11	36S	16E	6000
22G12	Fourmile Lake		9	36S	5E	6000
21G4P	Gerber		12	39S	13E	4850
22G26	Howard Prairie		32	38S	4E	4500
22G16	Hyatt Prairie Reservoir		15	39S	3E	4900
22G15	Lake of the Woods		11	37S	5E	4960
22G5	Park Headquarters		8	31S	6E	6450
22G25	Pelican Guard Station		9	36S	6E	4150
20G6MP	Quartz Mountain		2	38S	16E	5320
22G10P	Seven Lakes No. 1		3	34S	5E	6800
22G11	Seven Lakes No. 2		26	33S	5E	6200
20H1a	State Line	(Cal)	21	48N	11E	5750
20G9AP	Strawberry		4	40S	16E	5760
20G2AP	Summer Rim		15	33S	16E	7200
21G2	Sun Mountain		22	32S	7½E	5350
20G13a	Sycan Flat		25	31S	14E	5500
21G3P	Taylor Butte		22	33S	11E	5100

Pacific Power and Light Company's Snow Stations

NUMBER	NAME	SEC	TWP	RGE	ELEV
1	Beatty (PP&L)	22	36S	12E	4300
10	Bly 101 Ranch (PP&L)	22	35S	14E	4800
3	Chiloquin (PP&L)	34	34S	7E	4187
4	Crystal (PP&L)	26	34S	6E	4200
5	Fort Klamath (PP&L)	22	33S	7½E	4150
8	Harriman Lodge (PP&L)	3	36S	6E	4200
6	Kirk (PP&L)	1	33S	7E	4533
9	Quartz Mountain (PP&L)	33	37S	16E	5504
12	Yamsey (PP&L)	20	31S	11E	4600

LAKE COUNTY, GOOSE LAKE WATERSHEDS (11)

Goose Lake

NUMBER	NAME		SEC	TWP	RGE	ELEV
20G15a	Bear Flat Meadow		27	36S	19E	5900
20G8MP	Camas Creek		5	39S	21E	5720
20G11A	Cox Flat		16	37S	18E	5750
20G16a	Crane Mountain		13	40S	21E	6020
20H2a	Crowder Flat	(Cal)	30	47N	11E	5200
20H3a	Dismal Swamp	(Cal)	31	48N	16E	7200
20G17a	Patton Meadow		28	38S	18E	6800
20G6MP	Quartz Mountain		2	38S	16E	5320
20H1a	State Line	(Cal)	21	48N	11E	5750
20G9AP	Strawberry		4	40S	16E	5760

Abert Lake

NUMBER	NAME	SEC	TWP	RGE	ELEV
20G15a	Bear Flat Meadow	27	36S	19E	5900
20G18ap	Colvin Creek	12	36S	21E	6550
20G11A	Cox Flat	16	37S	18E	5750
20G14a	Finley Corrals	11	36S	16E	6000
20G4	Mill Creek	1	34S	17E	6200
20G6MP	Quartz Mountain	2	38S	16E	5320
20G10a	Sherman Valley	15	37S	21E	6600

Summer Lake

NUMBER	NAME	SEC	TWP	RGE	ELEV
20G2AP	Summer Rim	15	33S	16E	7200

Silver Lake

NUMBER	NAME	SEC	TWP	RGE	ELEV
21F12P	Silver Creek	25 & 26	29S	13E	4900
20G13a	Sycan Flat	25	31S	14E	5500

Warner Lake

NUMBER	NAME		SEC	TWP	RGE	ELEV
20G8MP	Camas Creek		5	39S	21E	5720
20G16a	Crane Mountain		13	40S	21E	6020
20H3a	Dismal Swamp	(Cal)	31	48N	16E	7200
19G1a	Hart Mountain		1	36S	25E	6350
20G10a	Sherman Valley		15	37S	21E	6600

Guano Lake

NUMBER	NAME		SEC	TWP	RGE	ELEV
19H1	Bald Mountain	(Nev)	17	45N	21E	6720
19G1a	Hart Mountain		1	36S	25E	6350
19H4a	Little Bally Mt.	(Nev)	8	45N	19E	6600

HARNEY BASIN WATERSHED (12)

Silvies River - Silver Creek

NUMBER	NAME	SEC	TWP	RGE	ELEV
18F7a	Call Meadows	29	20S	33E	5340
19F2	Delintment Lake	28	19S	26E	5600
19F3	Emigrant Butte	14	21S	27E	5000
18F3P	Idlewild Camp	27	20S	31E	5200
19E9P	Izee Summit	28	16S	29E	5293
18F1	Rock Spring	23	18S	32E	5100
19F1M	Snow Mountain	1	19S	26E	6300
19E7M	Starr Ridge	20	15S	31E	5150
18F4MP	Stinking Water	33	21S	34E	4800
19F4m	Willow-Bald	19	22S	29E	5000

Donner Und Blitzen River

NUMBER	NAME	SEC	TWP	RGE	ELEV
18F6a	Buck Pasture	21	29S	35E	5700
18G2MPA	Fish Creek	4	33S	32½E	7900
19G1a	Hart Mountain	1	36S	25E	6350
18G1MPA	Silvies	35	32S	32¼E	6900
18G7a	"V" Lake	31	35¼S	32¼E	6600

Trout and Whitehorse Creeks

NUMBER	NAME		SEC	TWP	RGE	ELEV
18G6a	Denio Creek		14	41S	34E	6000
18H1	Disaster Peak	(Nev)	8	47N	34E	6500
17G5a	Oregon Canyon		9	40S	40E	6950
18G5a	Trout Creek		10	41S	38E	7800

Harney Lake

NUMBER	NAME	SEC	TWP	RGE	ELEV
18G8a	Buckskin Lake	2	30S	30E	5200

Map and Index to OREGON SNOW COURSES

U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

M7-S-20976-N

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE
- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY
- Douglas County Water Resources Survey

FEDERAL
- Department of Agriculture
  - Cooperative Extension Service
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Land Management
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - National Park Service
- Department of National Defense
  - Corps of Army Engineers

PUBLIC UTILITIES
- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES
- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS
- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warmsprings Irrigation District

PRIVATE ORGANIZATIONS
- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

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